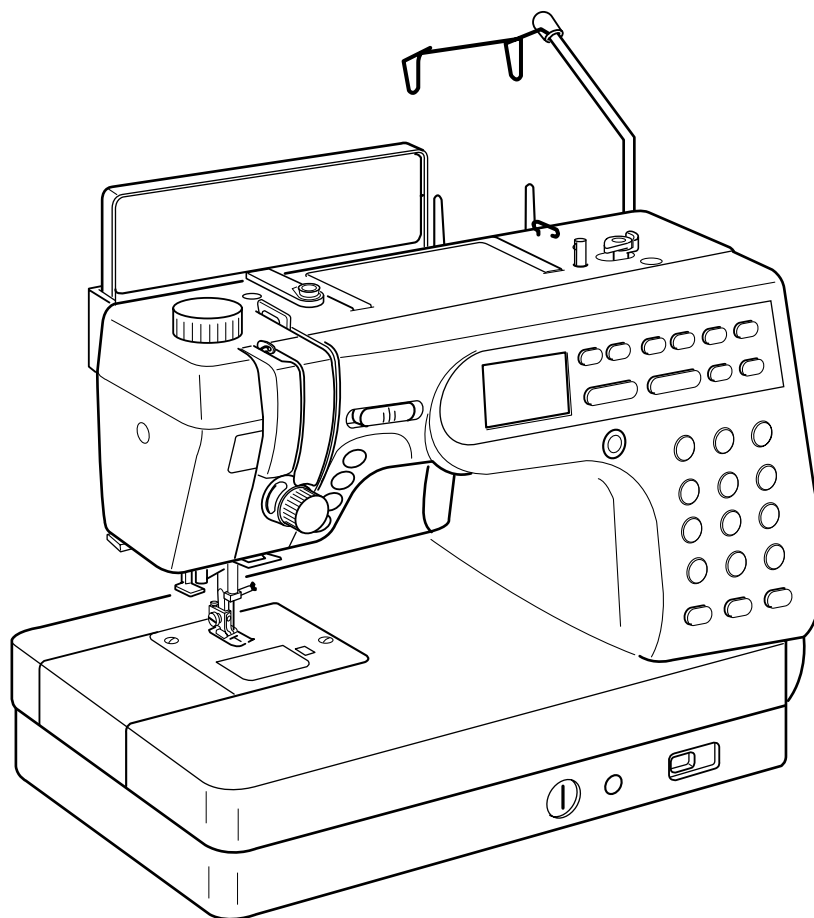


SINGER®

INSTRUCTION MANUAL

S18



IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:

This sewing machine is designed and manufactured for household use only.

Read all instructions before using this sewing machine.

DANGER— To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.

WARNING— To reduce the risk of burns, fire, electric shock, or injury to persons:

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. Use this appliance only for its intended use as described in this owner's manual. Use only attachments recommended by the manufacturer as contained in this owner's manual.
3. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return this sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air opening blocked. Keep ventilation openings of this sewing machine and foot controller free from accumulation of lint, dust and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off ("O") position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle and/or cutting blade.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Switch this sewing machine off ("O") when making any adjustment in the needle area, such as threading the needle, changing the needle, threading the bobbin or changing the presser foot, and the like.
15. Always unplug this sewing machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this owner's manual.

SAVE THESE INSTRUCTIONS

For Europe only:

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

For outside Europe (except U.S.A and Canada):

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/electronic products. If in doubt please contact your retailer for guidance. (European Union only)

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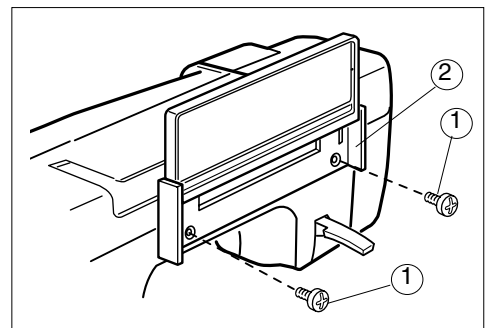
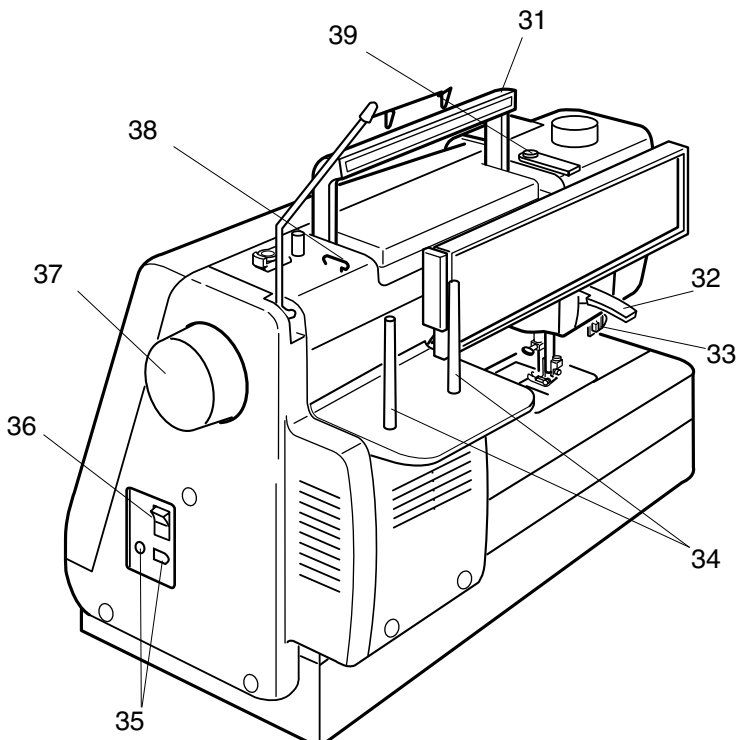
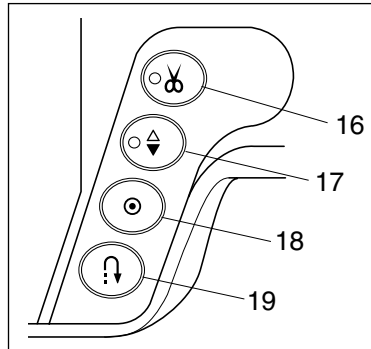
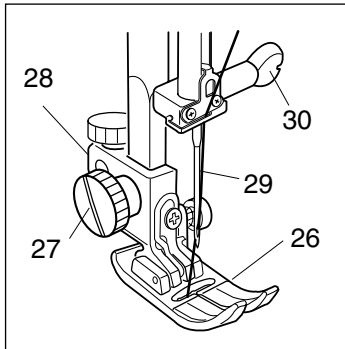
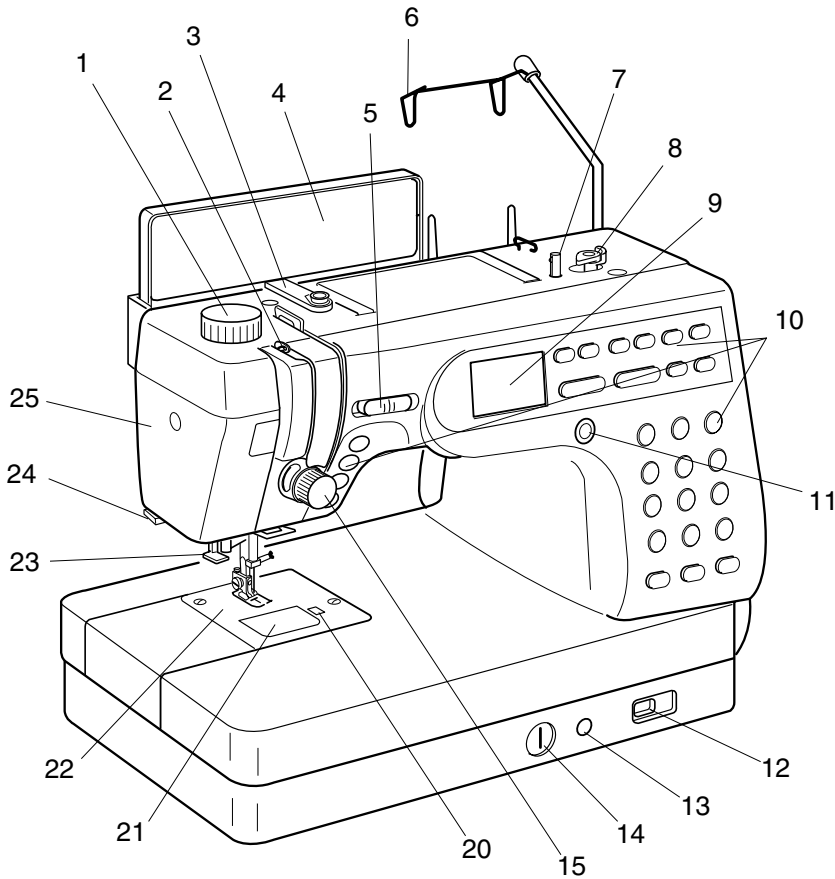
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MACHINE IDENTIFICATION

Name of parts

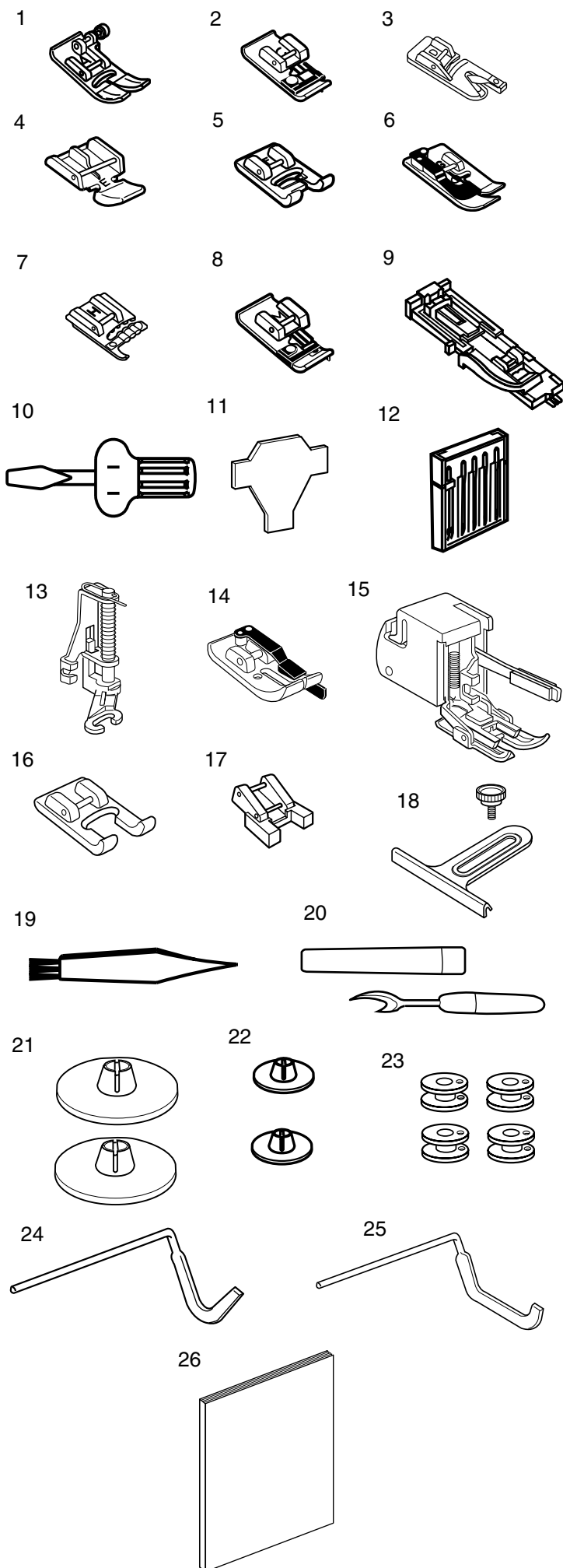
1. Presser foot pressure dial
2. Thread take-up lever
3. Thread guide plate
4. Quick reference board
5. Speed control lever
6. Retractable thread guide
7. Bobbin winder spindle
8. Bobbin winder stopper
9. LCD screen
10. Function buttons
11. LCD contrast adjusting dial
12. Feed dog lever
13. Knee lifter socket
14. Stitch balance adjusting dial
15. Thread tension dial
16. Thread cutter button
17. Needle up/down button
18. Auto-lock button
19. Reverse button
20. Bobbin case cover release button
21. Bobbin case cover
22. Needle plate
23. Needle threader
24. Thread cutter on face plate
25. Face plate
26. General purpose foot A
27. Thumb screw
28. Presser foot holder
29. Needle
30. Needle clamp screw
31. Carrying handle
32. Presser foot lifter
33. Buttonhole lever
34. Spool pins
35. Machine sockets
36. Power switch
37. Handwheel
38. Thread guide
39. Pre-tension guide for bobbin



Attaching the quick reference board

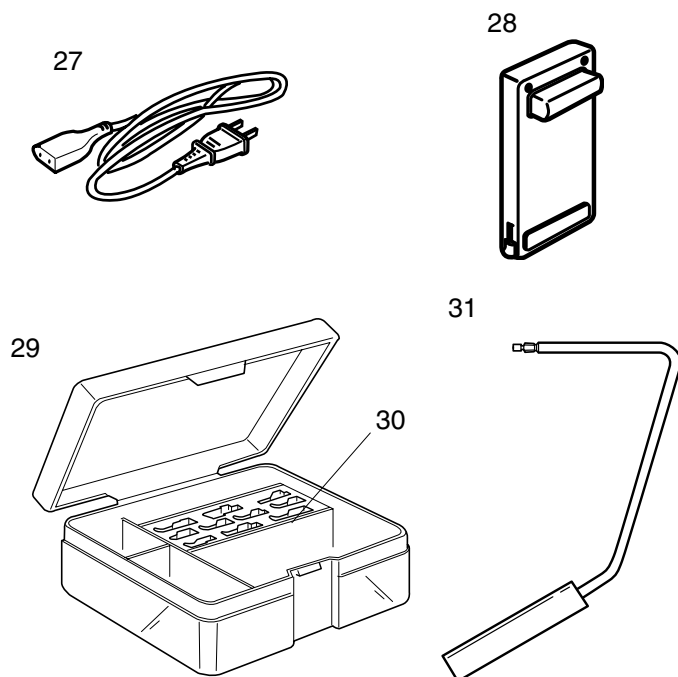
The quick reference board and setscrews are included in the standard accessories. Fix the quick reference board on the backside of the machine with the two setscrews. Tighten the screws firmly with a screwdriver.

- ① Setscrews
- ② Quick Reference Board



Standard Accessories

1. General purpose foot **A** (comes attached to the machine)
2. Overedge foot **C**
3. Narrow hemmer foot **D**
4. Zipper foot **E**
5. Satin stitch foot **F**
6. Blind hem foot **G**
7. Cording foot **H**
8. Overcasting foot **M**
9. Automatic buttonhole foot **R**
10. Screwdriver
11. Screwdriver for needle plate
12. Set of needles
13. Darning/Embroidery foot **P-2**
14. Quarter inch foot with guide **O**
15. Even feed/Walking foot
16. Open toe foot **F-2**
17. Button sewing foot **T**
18. Cloth guide with screw
19. Lint brush
20. Seam ripper
21. Spool pin caps (Large)
22. Spool pin caps (Small)
23. Class 15 bobbins
24. Edge/quilting guide
25. Quilting bar for even feed/walking foot
26. Instruction book
27. Power supply cord
28. Foot control
29. Accessory box
30. Foot storage compartment (marked with letters corresponding to the presser feet)
31. Knee lifter for presser foot



GETTING READY TO SEW

Connecting the Power Supply

Check that power switch is in the off position. Insert the foot control plug into the machine socket. Insert the machine plug into the machine socket. Insert the power supply plug into the wall outlet. Turn on the power switch.

- 1 Power switch
- 2 Foot control plug
- 3 Machine socket
- 4 Machine plug
- 5 Power supply plug
- 6 Wall outlet

NOTE

If you turn off the power switch, wait for 15 seconds before turning it on again.

For Your Safety:

While in operation, always keep your eyes on the sewing area. Keep your hands free from any moving parts such as the thread take-up lever, handwheel or needle. Always turn off the power switch and unplug from the power supply:

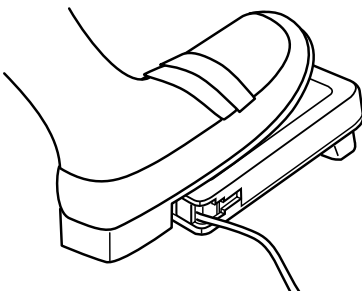
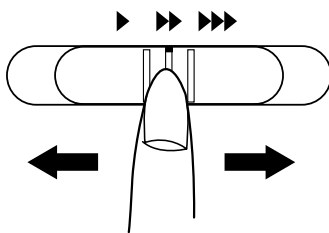
- when leaving the machine unattended.
- when attaching or removing parts.
- when cleaning the machine.

Do not place anything on the foot control when not in use.

Operating Instructions:

The symbol "O" of a switch indicates the "off" position of a switch.

For appliances with a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If it does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.



Controlling Sewing Speed

Speed control lever

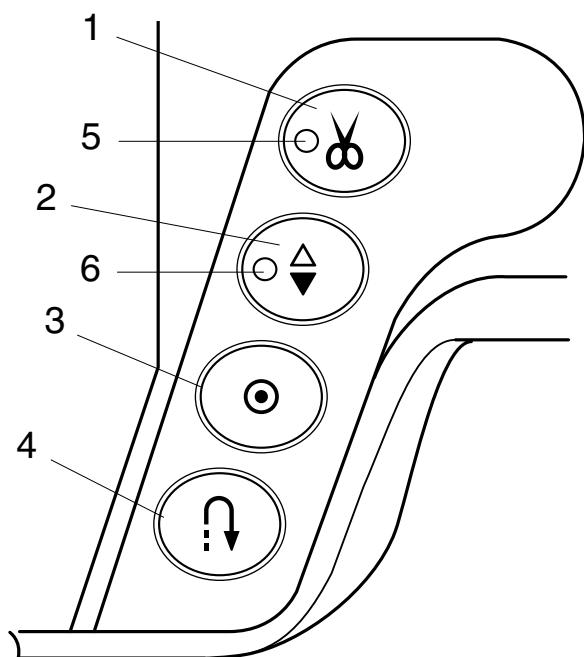
You can limit the maximum sewing speed by the speed control lever according to your sewing needs.

To increase sewing speed, slide the lever to the right.

To decrease sewing speed, slide the lever to the left.

Foot control

Sewing speed is varied by the foot control and the speed control lever. The heavier the foot presses down on the controller the faster the machine runs. The machine runs at the maximum speed set by the speed control slider when the foot control is being fully depressed.



Functions of Buttons

1 Thread cutter button

Press this button after finishing sewing and the machine will trim the threads.

The LED signal blinks while cutting thread of the needle and bobbin.

5 Thread cutter signal

NOTE

The auto thread cutter can be used for threads #30 or finer.

Use the thread cutter on the face plate of the machine to cut specialty thread or threads heavier than #30 weight.

The auto thread cutter can not be used with a hemstitching needle (wing needle) or with a twin needle.

The thread cutter works best in conjunction with the needle up/down button in the down position.

The cutting action may cause the spools to become tangled if the needle is not set in a down position.

Clean the auto thread cutter mechanism regularly to avoid malfunction due to built up lint. (See page 71.)

Use only SINGER® class 15 bobbins in your machine. Using improperly sized bobbins or pre-wound bobbins may cause stitching problems. Improper bobbins can damage your bobbin case and machine.

2 Needle up/down button

Press this button to select the needle to stop up or down when done stitching.

If you select the needle down position the LED signal on the button will come on and stay on till changed to needle up. The light will remain on after using the auto thread cutter. The auto thread cutter will make the needle stop up. The needle down function is recommended when ever using the automatic thread cutter.

6 LED signal light

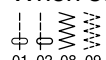
3 Auto-Lock button

Press the auto-lock button at the end of a seam to sew locking stitches to secure the end of the seam.

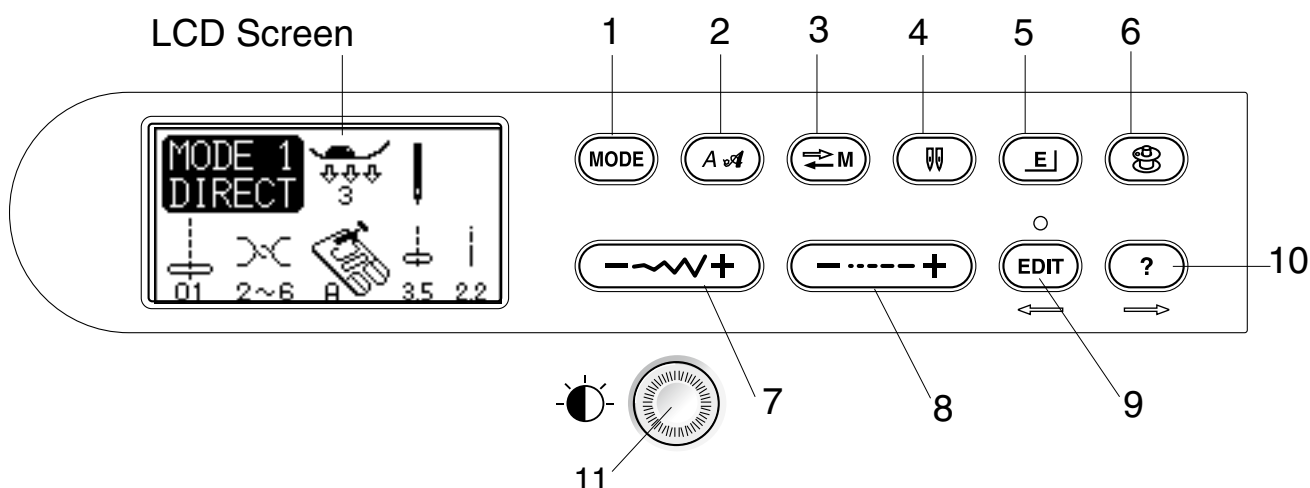
The machine will stop automatically after these locking stitches with foot control pressed down. The auto-lock can be used with all stitch patterns on the machine.








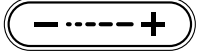


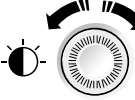
4 Reverse button

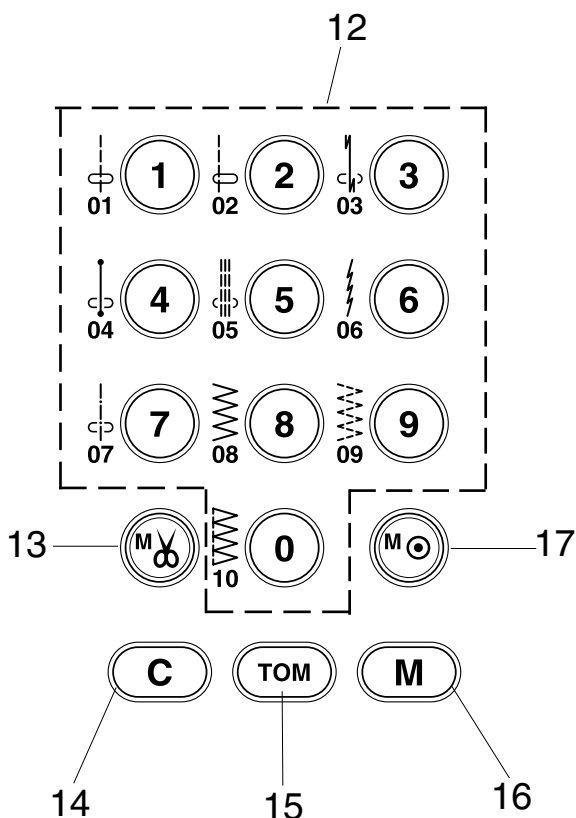
When sewing with stitch pattern 01, 02, 08 or 09

 and selecting reverse, the stitch pattern will sew in reverse.

For all other stitch patterns, when reverse is selected, the machine will stop sewing where the needle is and sew locking stitches in place.



1		Mode button: Press this button to select the desired mode.
2		Letter style button: Press this button to change the letter style of monogram.
3		Memory/Recall button: Press this button to register or recall programmed stitch pattern combinations. The previous stitch pattern combination will be replaced by the new combination when pressing this button after programming. The memorized stitch pattern combination will be recalled when pressing this button on the initial screen of the selected mode.
4		Twin needle button: Press this button when sewing with a twin needle. The machine will limit width to protect a 2.0 width double needle from breakage.
5		Elongation button: Press this button to elongate satin stitch patterns in Mode 3. Note: Not all stitch patterns can be elongated.
6		Bobbin winding button: Press this button to wind the bobbin.
7		Stitch width adjusting button: Press this button to alter the stitch width.
8		Stitch length adjusting button: Press this button to alter the stitch length.
9		Editing button: Press this button to edit the programmed stitch patterns. In the editing mode this button is used to shift the cursor to the left.
10		Help button: Press this button to view alternative applications of certain stitches and correct choice of sewing foot. In the editing mode this button is used to shift the cursor to the right.
11		LCD contrast adjusting dial: Turn this dial to adjust contrast of the LCD Screen.



Pattern Selection Buttons

12 Pattern selection buttons

In Mode 1 (Direct Selection) you can press your desired stitch pattern directly from the pattern selection buttons. For example, selecting 08 will give you the zigzag stitch.

When Mode 2 (Quilting), Mode 3 (Utility), and Mode 4 (Lettering) are selected the pattern selection buttons are used to recall stitch patterns in those modes. For example select Mode 3 and select 12, and you will see the automatic buttonhole on the LCD screen.

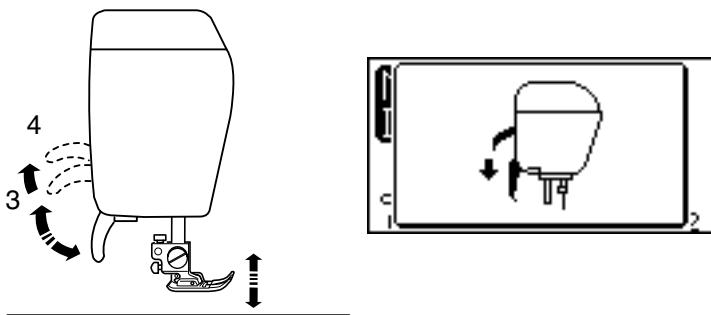
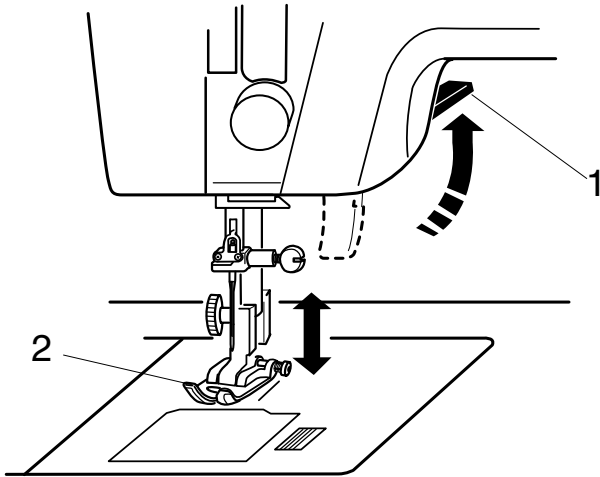
13		Auto thread cutter button: Press this button after the last memorized stitch pattern and the machine will automatically trim the threads when sewing is finished.
14		Clear button: When the clear button is pressed it will recall the stitch patterns that are programmed in the MODE that is on screen. The clear button can also delete a sequence of stitch patterns that have been programmed. Hold the clear button in for a few seconds and the programmed stitch patterns will clear.
15		Turnover memory button: The turnover memory button can be used in Mode 2 and Mode 3. Pressing the button after selecting a stitch program will mirror image the stitch pattern. In Mode 4, pressing this button will reduce the letters to 2/3 of their original size.
16		Memory button: Press this button to memorize the desired stitch pattern on screen. Up to 50 stitch patterns can be stored in each of these modes: Mode 2, Mode 3 and Mode 4.
17		Locking stitch button: Press this button after programming the last stitch pattern. The machine will sew the stitch pattern combination programmed and auto-lock the last stitch pattern. The machine will then automatically stop at the end of the sequence.

Raising and Lowering the Presser Foot

The presser foot lifter raises and lowers the presser foot.

You can raise the presser foot about 1/4" (0.7 cm) higher than the locked up position. The lifter will not stay locked at this higher setting. The extra area helps when putting different presser feet on and putting bulky fabrics under the presser foot.

- 1 Presser foot lifter
- 2 Presser foot
- 3 Up position
- 4 Extra lift



NOTE

If you start to sew with the presser foot up, the machine will beep and the LCD screen will advise you to lower the presser foot.

Attaching the Knee Lifter

The knee lifter is very helpful when quilting, sewing appliques, or when working with larger projects because it allows you to keep both hands on the fabric while your knee controls the presser foot.

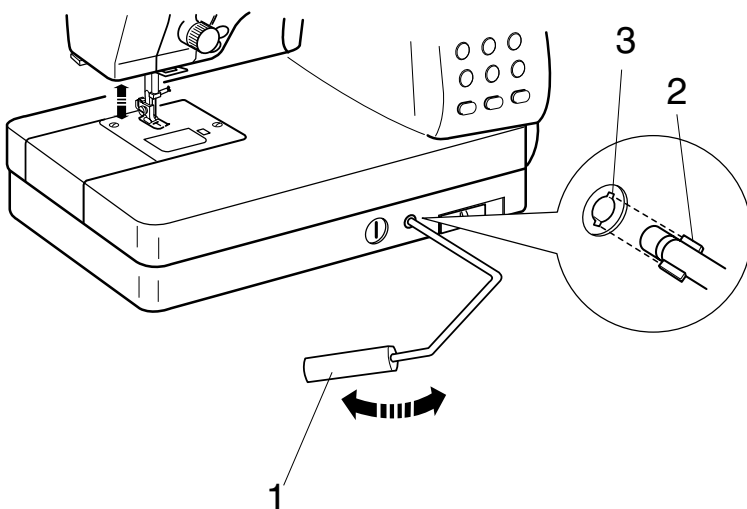
Match the ribs on the knee lifter with the notches in the machine socket and insert the knee lifter.

- 1 Knee lifter
- 2 Ribs
- 3 Machine socket notches

Push the knee lifter with your knee to raise and lower the presser foot.

NOTE

Keep leg away from lifter while sewing. Pressing on knee lift while sewing will effect feeding of fabric and the thread tension.



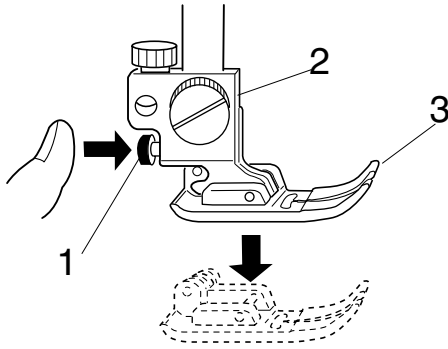
Changing the Presser Foot

Many of the various presser feet can be changed easily with a push of the finger.

To snap off foot:

Raise the needle and presser foot to the up position. Press the button on the back of the presser foot holder and the foot will drop.

- 1 Button
- 2 Foot holder
- 3 Presser foot

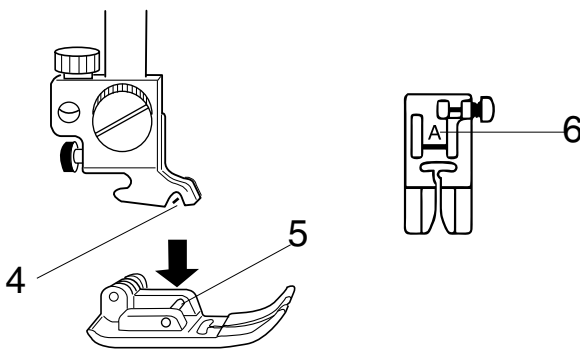


To snap on:

Align the presser foot so the pin on the foot lies just under the groove of the presser foot holder.

Lower the presser foot holder to lock the foot in place. Each foot is marked with a letter for identification.

- 4 Groove
- 5 Pin
- 6 Identification letter



CAUTION

When selecting the proper foot for the stitch pattern selected, refer to the information in the LCD window. Also the help button can help you choose the right foot for the right sewing technique. See page 25 in the manual for further information.

Remember that not all stitches can be sewn with all of the feet. Be careful because the incorrect foot can cause needle damage and harm to your machine.

Removing and Attaching the Presser Foot Holder

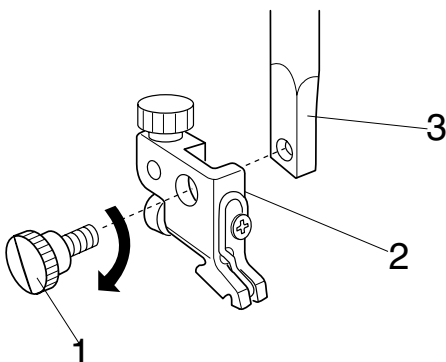
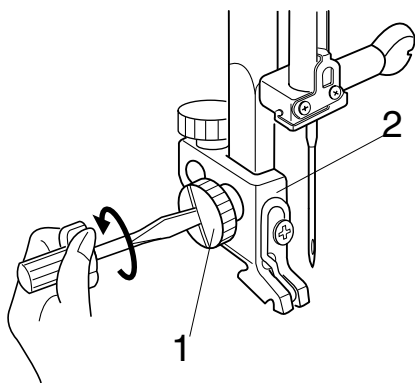
WARNING

Turn OFF the power switch before detaching or attaching the presser foot holder.

To detach:

Raise the presser foot holder up. With large screwdriver turn the thumbscrew counterclockwise to remove the presser foot holder from the needle bar.

- 1 Thumbscrew
- 2 Presser foot holder

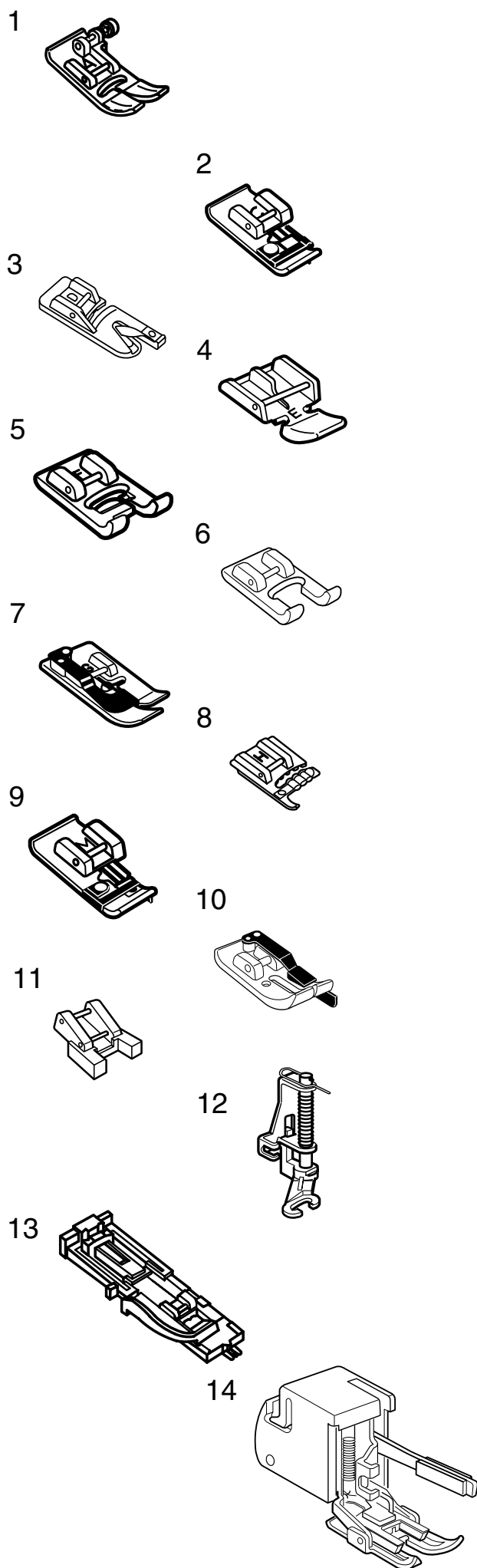


To attach:

Align the hole in the presser foot holder with the threaded hole in the presser bar and insert the thumbscrew through the hole.

Tighten the thumbscrew by turning it clockwise.

- 3 Presser bar



Variety of Presser Feet and Their Uses

1 General purpose foot A:

The general purpose foot will be used for the majority of your sewing needs. The foot is designed to achieve good stitch quality when straight stitching.

2 Overedge foot C:

This foot is exclusively for overedging. The brush on the foot effectively prevents skipped stitches on the raw edge of fabrics. The brush also keeps lint build up off the needle when working with fabrics that have a nap or pile.

3 Narrow hemmer foot D:

This special foot is for sewing a narrow hem. The curl of the foot helps to form a hem at a constant width.

4 Zipper foot E:

This foot is for sewing zippers and also for creating and inserting piping.

5 Satin stitch foot F:

This clear plastic foot is ideal for satin stitching and decorative stitch patterns. The center groove on the bottom of the foot ensures smooth feeding of dense stitches.

6 Open toe foot F-2:

The open toe satin stitch foot for decorative stitching and appliqué.

7 Blind hem foot G:

This foot is specially designed for blind hemming. The guide on the foot helps feed the fabric and sew a straight and nearly invisible blind-hem.

8 Cording foot:

This foot is specially designed to hold one or three strands of cording to create braiding.

9 Overcasting foot M:

This foot is specially designed to simulate professional style overlocking. The wires on the foot effectively prevent the fabric edge from puckering or rolling.

10 Quarter inch foot with guide O:

This foot is useful for patchwork piecing. The guide on the foot helps to maintain an exact 1/4" (0.7 cm) seam allowance.

11 Button sewing foot T:

This foot is exclusively used for attaching a button. The grips on the foot hold the button securely in place while stitching.

12 Darning/Embroidery foot P-2:

This foot can be used with the basting stitch #07 in Mode 1. This foot can also be used for free-motion embroidery or stipple quilting.

13 Automatic buttonhole foot R:

This foot is for buttonholes and for darning. Place a button in the button holder on the rear of the foot. This automatically sets the buttonhole size. The buttonhole foot holds fabrics securely when sewing darning stitches.

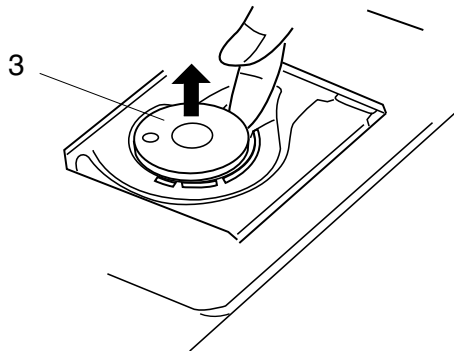
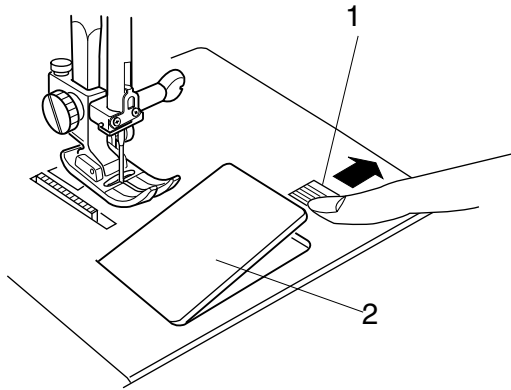
14 Even feed / Walking foot:

This is a special attachment for fabrics that tend to shift when sewing. This foot helps prevent two fabrics from shifting and puckering when stitching. Use this foot for quilting multiple layers and matching plaids.

Winding the Bobbin

Removing the bobbin

Slide the bobbin case cover plate release button to the right and remove the bobbin case cover plate.



Lift out the bobbin from the bobbin case.

- 1 Bobbin case cover plate release button
- 2 Bobbin case cover plate
- 3 Bobbin

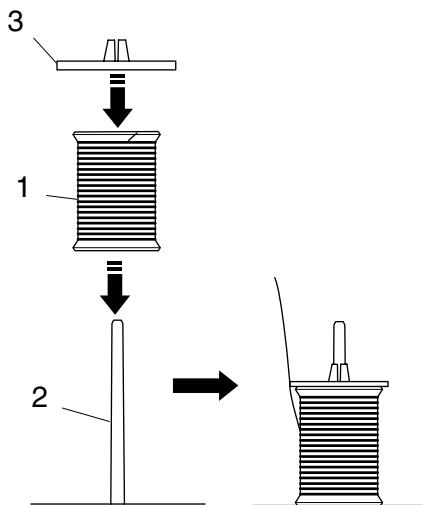
NOTE

Use only SINGER® Class 15 bobbins in your machine. Using improper sized bobbins and pre-wound bobbins may cause stitching problems. Improper bobbins can damage your bobbin case and machine.

Preparing the Thread Spool for Winding

Place the spool of thread on the spool pin with the thread coming off the spool as shown. Attach the spool cap and press it snug against the spool of thread.

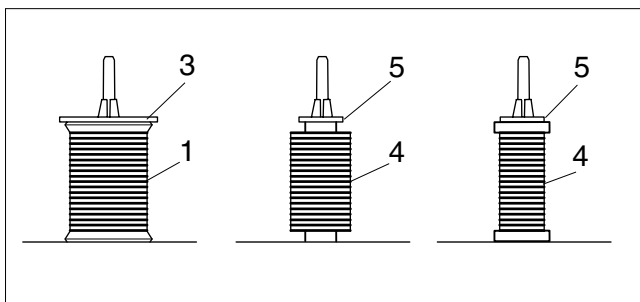
- 1 Spool of thread
- 2 Spool pin
- 3 Spool holder



A spool cap is used to prevent the spool moving as the thread feeds off. The cap also prevents thread catching on rough edges at the top of the spool. The automatic thread cutter works best when threads are held stationary with spool caps.

Use the large spool cap for large spools and the small spool cap for small spools.

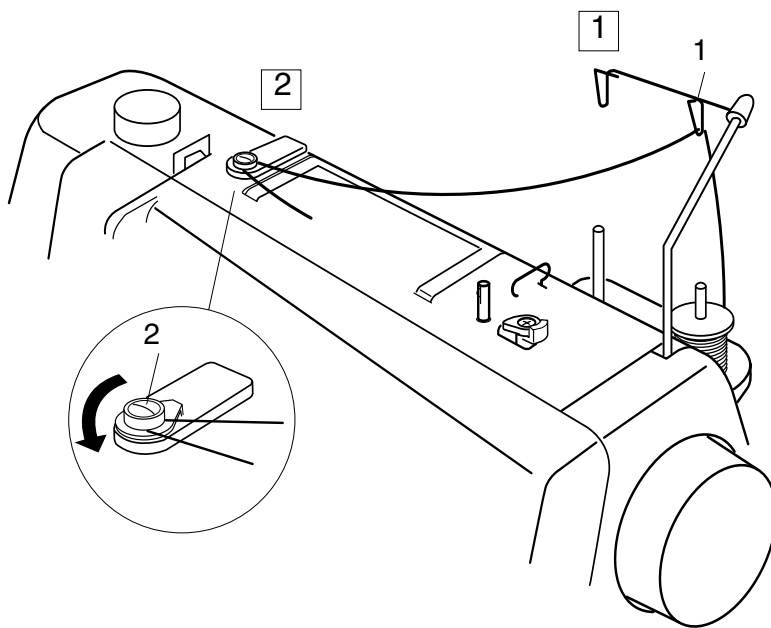
- 4 Small spool
- 5 Small spool cap



NOTE

When sewing with decorative threads wound on paper spool spools the automatic thread cutter should not be used. The spool caps may not hold the spool from moving when the cutter activates. The movement can cause the threads to drop down from the spool. The pooling at the bottom of the spool will cause the thread to not feed off correctly.

Go to www.singerco.com for information on where to buy needles and bobbins.



Winding the Bobbin

Step 1

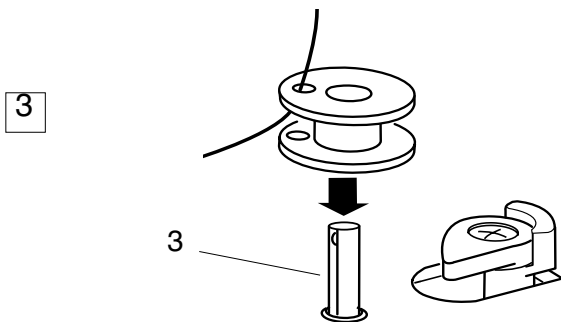
Pass the thread through the thread guide on the thread guide post from behind.

1 Thread guide bar

Step 2

Pass the thread under the bobbin winding tension disk.

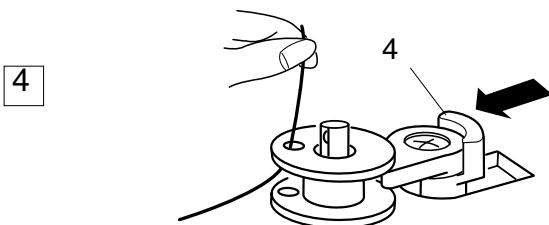
2 Bobbin winding tension disk



Step 3

Thread through the hole in the bobbin from the inside to the outside.

3 Bobbin winder spindle

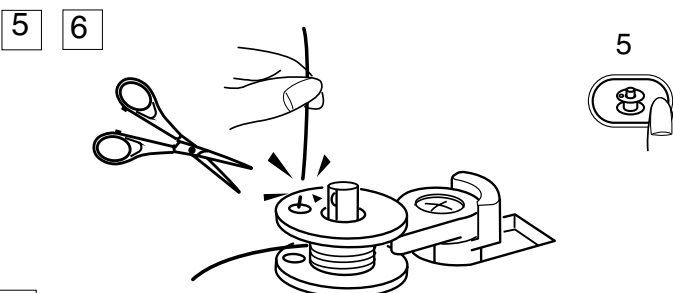


Step 4

Put the bobbin on the bobbin winder spindle.

Push the bobbin winder stopper to the left.

4 Bobbin winder stopper

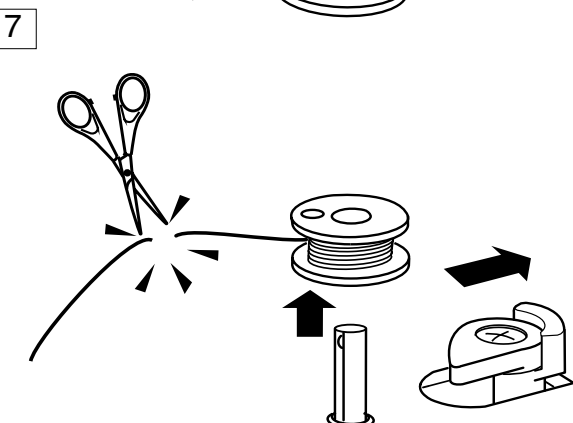


Step 5/6

Hold the free end of the thread in your hand and press the bobbin winding button.

Press the bobbin winding button again to stop the bobbin when it has made several turns, and cut the thread close to the hole in the bobbin.

5 Bobbin winding button



Step 7

Press the bobbin winding button again. When the bobbin is fully wound, the machine will stop automatically.

Return the bobbin winder stopper to its original position and cut the thread.

The SINGER® Studio™ S18 sewing machine has an independent motor for bobbin winding. Bobbins can be wound while sewing.

Inserting the Bobbin

Step 1

Place the bobbin in the bobbin case with the thread coming off counter clockwise.

- 1 Thread
- 2 Bobbin case

Step 2

Guide the thread into notch **(A)** on the front of the bobbin case.

Step 3

Draw the thread to the left, sliding it between the tension spring blades.

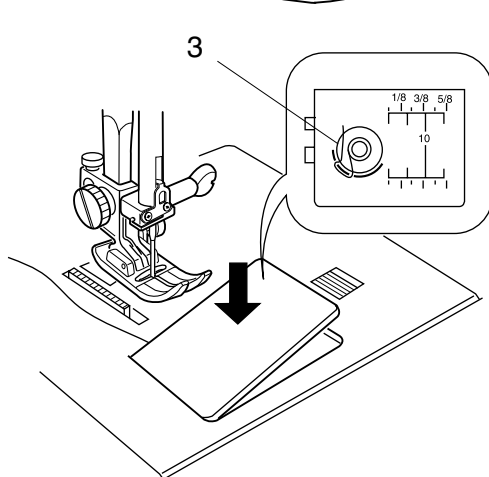
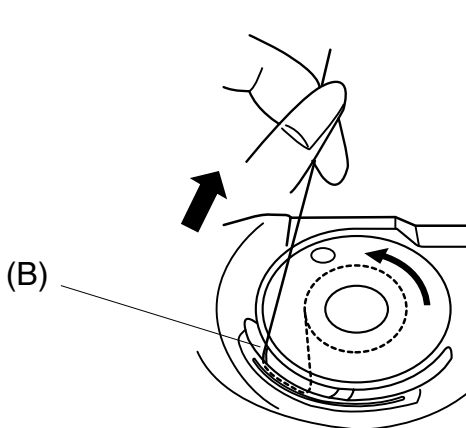
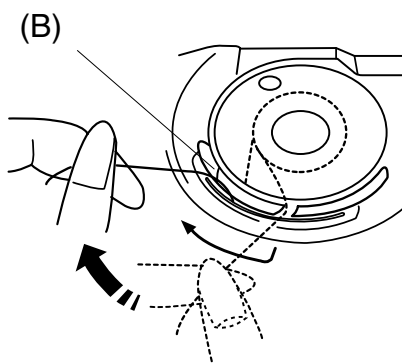
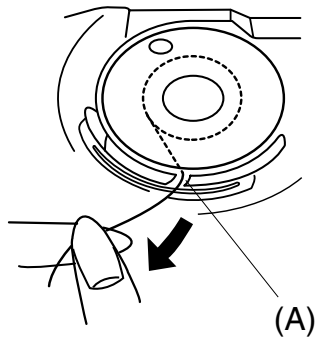
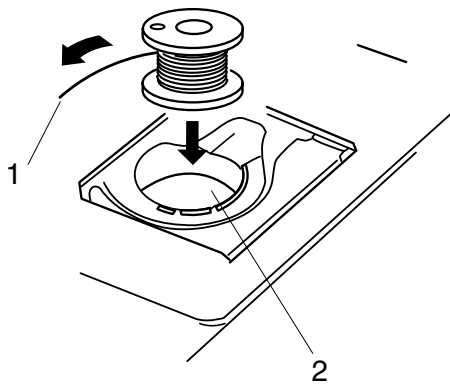
Step 4

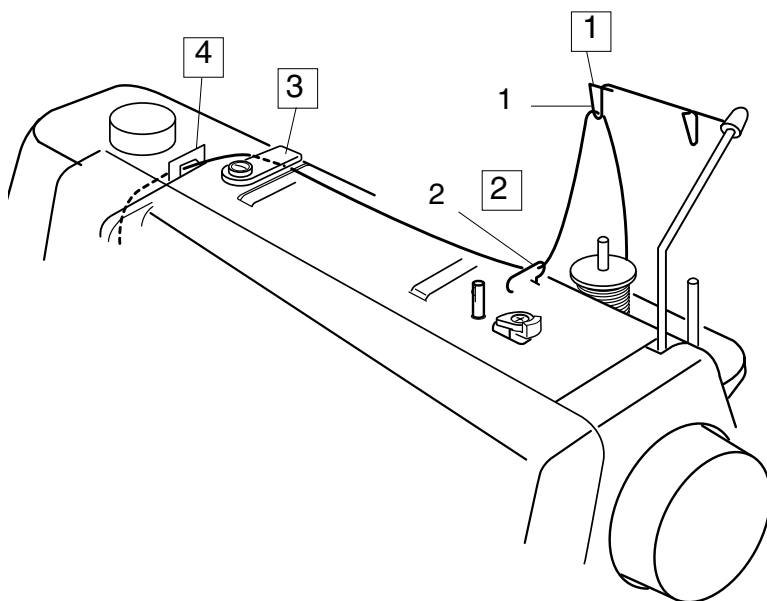
Continue to draw the thread lightly until the thread slips into side notch **(B)**. The bobbin should turn counter clockwise when pulling the bobbin thread.

Step 5

Pull out about 4" (10 cm) of thread to the rear. Refer to the threading chart shown on the bobbin case cover plate. Reattach the bobbin case cover plate.

- 3 Threading diagram





Threading the Machine

Raise the presser foot lifter. Press the needle up/down button twice to raise the needle to its highest position.

Step 1

Pass the thread up through the guide on the thread guide bar from behind.

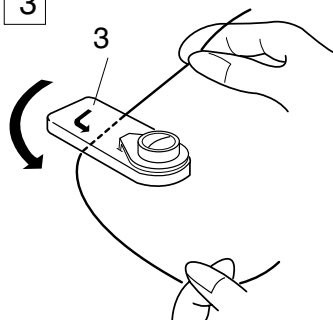
1 Thread guide bar

Step 2

Pass the thread through the machine thread guide.

2 Machine thread guide

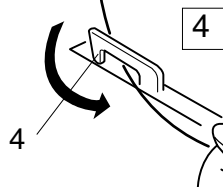
3



Step 3

Hold the upper thread with both hands as shown and slip it under the thread guide plate.

3 Thread guide plate



Step 4

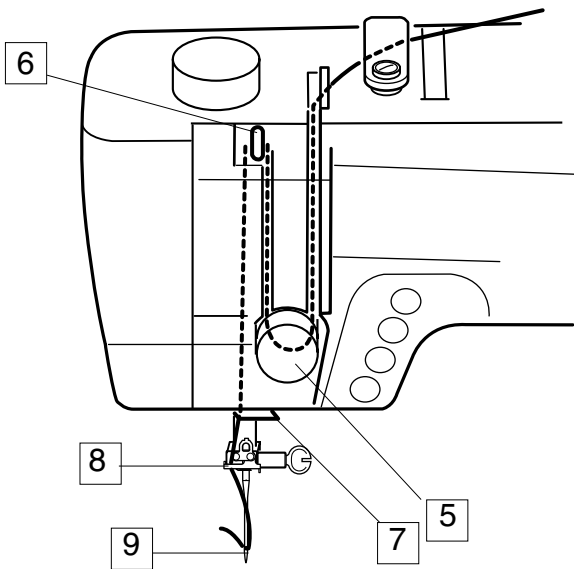
Draw the thread toward you and pass it into the left thread guide. Draw the thread along the right channel.

4 Left thread guide

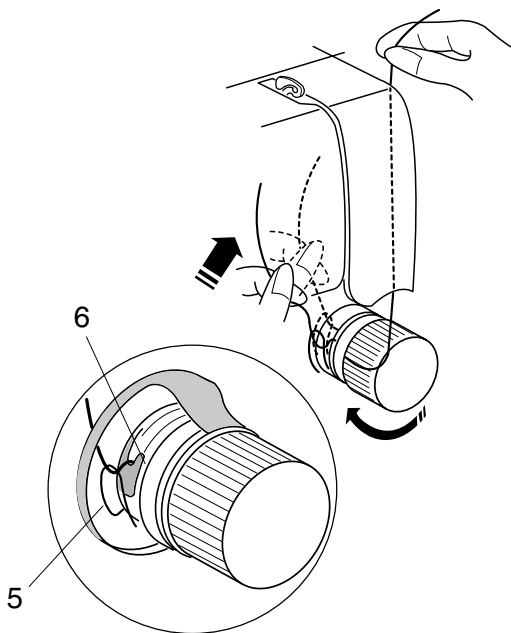
NOTE

This is a good time to make sure that the thread is feeding smoothly off the spools and the thread caps are secure.

Threading the Machine (continued)



5

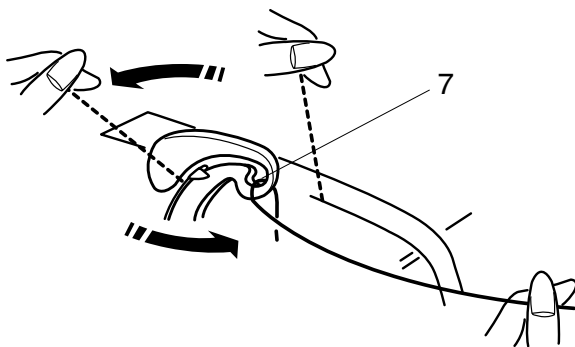


Step 5

Draw the thread down and around the tension dial from the right to the left. Pull the thread up to insert it between the tension disks and under the loop of the check spring. Be sure that the thread is coming out from notch of the disk.

- 5 Check spring
- 6 Notch

6



Step 6

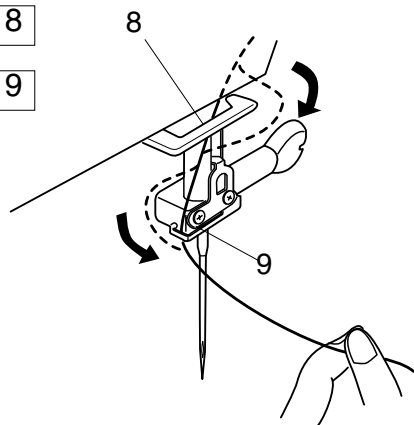
Firmly draw the thread up to the take-up lever and down into its eye from the right to the left.

- 7 Eye of the thread take-up lever

7

8

9



Step 7

Draw the thread down through the lower thread guide from the right.

- 8 Lower thread guide

Step 8

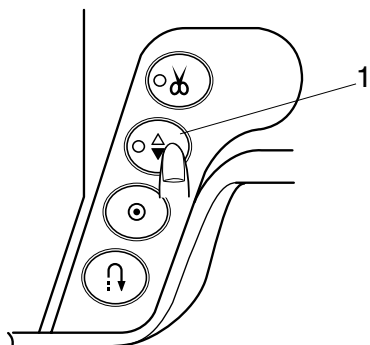
Slip the thread behind the needle bar thread guide on the left.

- 9 Needle bar thread guide

Step 9

Thread the needle from front to back by hand or use the automatic needle threader.

1 2 3



Automatic Needle Threader

Step 1

Raise the needle to its highest position by pressing the needle up/down button twice. Check that the needle is in a center position. A stitch width of 3.5 is centered.

1 Needle up/down button

Step 2

Turn the power switch off.

Step 3

Lower the presser foot.

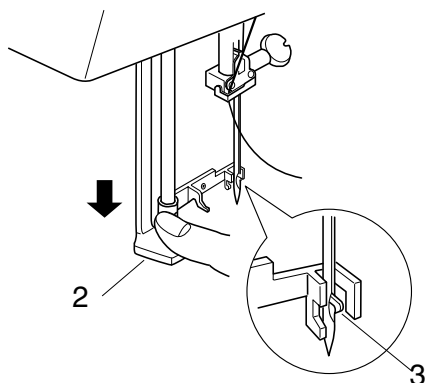
Step 4

Depress the needle threader lever as far as it will go. The hook enters the needle eye from behind.

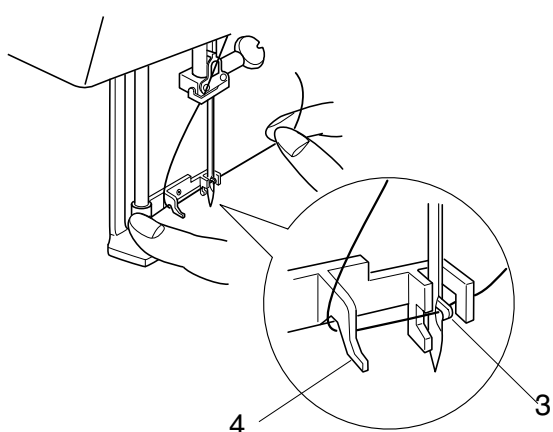
2 Needle threader lever

3 Hook

4



5

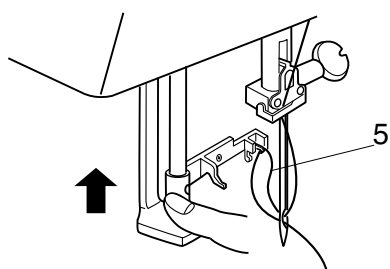


Step 5

Draw the thread down around the threader guide and under the hook.

4 Threader guide

6

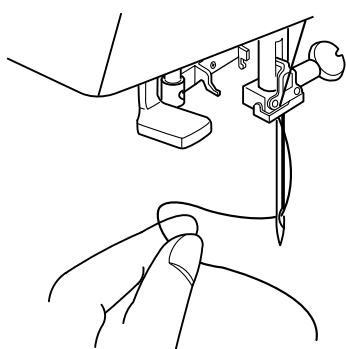


Step 6

Release the threader lever slowly while holding the thread end with your hand lightly. A loop of the thread is pulled up through the needle eye.

5 Loop of thread

7



Step 7

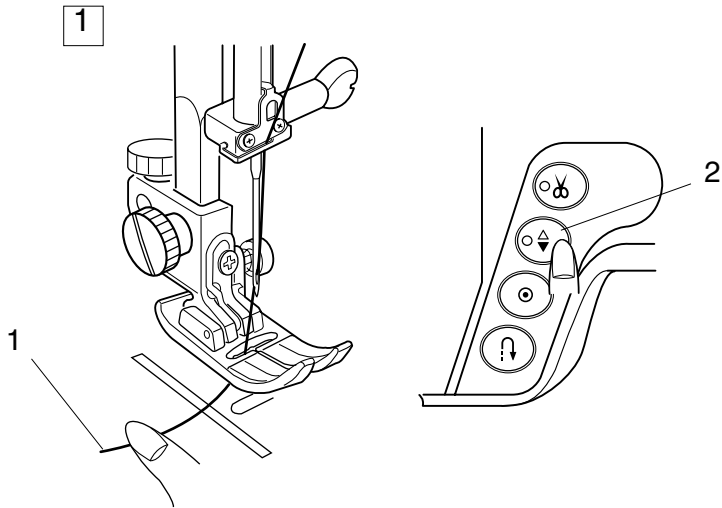
Remove the loop from the threader and pull out the thread end from the needle eye.

NOTE

The automatic needle threader cannot be used for threading a twin needle or a hemstitching (wing) needle.

If the needle hook is missing the needle hole check that the needle is in a center needle position. (3.5)

Drawing Up the Bobbin Thread

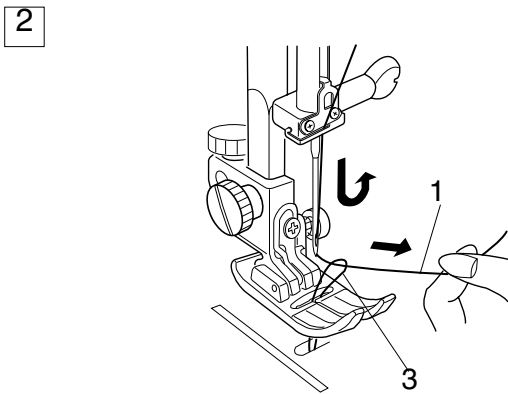


Step 1

Raise the presser foot lifter.

Hold the needle thread with your finger and press the needle up/down button twice to bring up the bobbin thread.

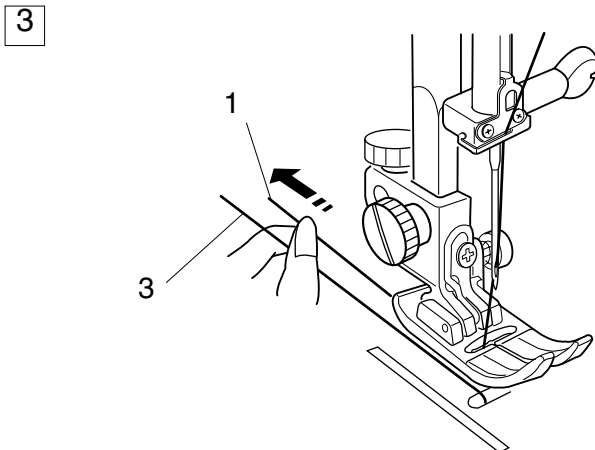
- 1 Needle thread
- 2 Needle up/down button



Step 2

Lift up the needle thread to bring up a loop of bobbin thread.

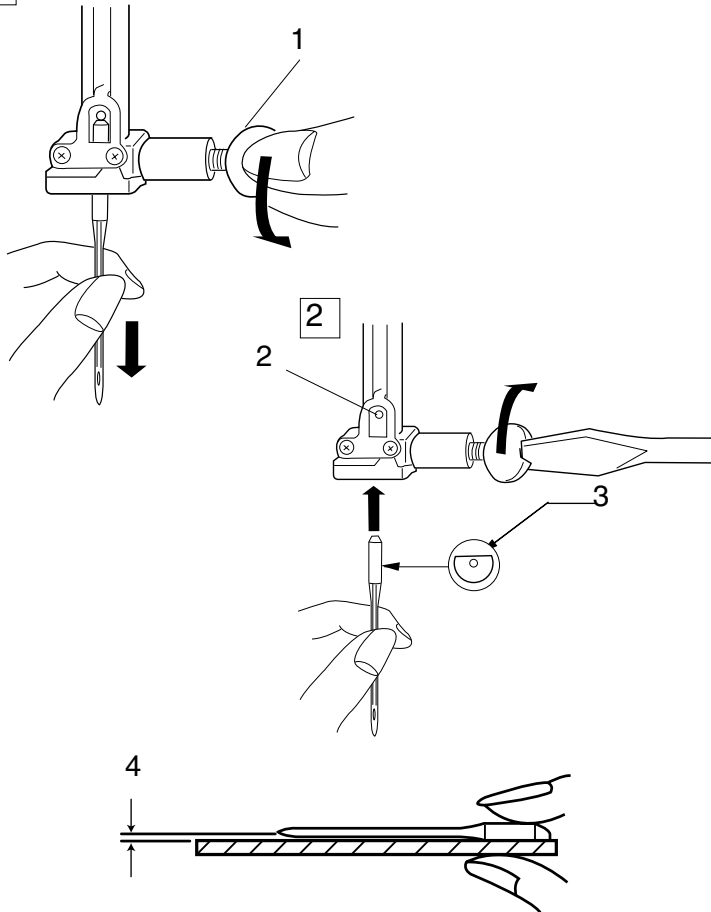
- 3 Bobbin thread



Step 3

Slide 4" (10 cm) of both threads to the back under the presser foot. You can also pull the threads up to the thread cutter on the machines cover plate. See page 5 of manual for machine identification.

1



Changing Needles

Step 1

Raise the needle by pressing the up/down needle button and lower the presser foot. Turn off the power switch. Loosen the needle clamp screw by turning it counterclockwise. Remove the needle from the clamp.

1 Needle clamp screw

Step 2

Insert a new needle into the needle clamp with the flat side of the needle to the rear.

When inserting the needle into the needle clamp, push it up against the stopper pin and tighten the needle clamp screw firmly.

2 Stopper pin

3 Flat side

To check needle straightness, place the flat side of the needle onto something flat (a needle plate, glass etc.) The gap between the needle and the flat surface should be consistent.

4 Gap

CAUTION

Always make sure to turn the power switch off and disconnect the machine from power supply before changing the needle. Remove and discard damaged needles. Blunt, burred or bent needles can harm your machine and fabric.

Thread and Needle Chart

Included with this machine is a package of 5 needles: A twin needle, a ballpoint needle, 2 regular point needles size 11, and a regular point needle size 14. When purchasing additional needles, refer to chart for recommended needle type and size.

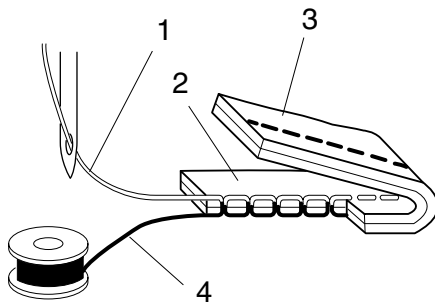
Weight	Fabric	Type of needle	Needle size
Very Light	Fine Lace, Net, Tulle	SINGER® 2001 Chromium ballpoint needle SINGER® 2045 Ballpoint needle	11 9
Light	Batiste, Organdy, Voile, Lawn, Silk, Crepe, Chambray, Lightweight Linen, Gingham, Challis, Wool Crepe, Taffeta, Satin, Organza	SINGER® 2000 Chromium regular point needle SINGER® 2020 Regular point needle	11 11
	Single Knits, Jersey, Swim Wear, Tricot	SINGER® 2001 Chromium ballpoint needle SINGER® 2045 Ballpoint needle	11 11
	Leather, Suede, Oilcloth	SINGER® 2032 Leather needle	14
Medium	Flannel, Velvet, Muslin, Velveteen, Poplin, Corduroy, Broadcloth, Linen, Chintz, Gabardine, Terry cloth, Quilted Fabric	SINGER® 2000 Chromium regular point needle SINGER® 2020 Regular point needle	14 14
	Double Knits, Velour, Stretch Terry, Sweater Knits	SINGER® 2001 Chromium ballpoint needle SINGER® 2045 Ballpoint needle	14 14
	Leather, Vinyl, Suede	SINGER® 2032 Leather needle	14
Heavy	Denim, Sailcloth, Ticking, Twill	SINGER® 2026 Denim needle	16
	Double Faced Wool, Heavy Coating, Faux Fur, Burlap, Drapery Fabric	SINGER® 2000 Chromium regular point needle SINGER® 2020 Regular point needle	16 16
	Leather, Suede	SINGER® 2032 Leather Needle	16
Very Heavy	Canvas, Duck, Upholstery Fabrics	SINGER® 2000 Chromium regular point needle SINGER® 2020 Regular point needle	16 18

Balancing Thread Tension

Correct tension:

The ideal straight stitch has threads locked evenly between two layers of fabric.

For an ideal zigzag stitch, the bobbin thread does not show on the right side of the fabric, and the needle thread shows slightly on the wrong side of the fabric.



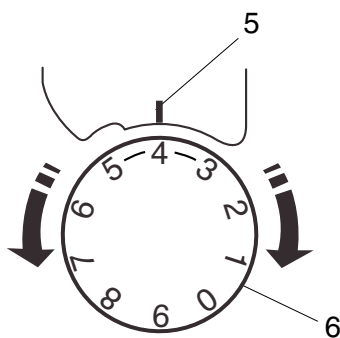
- 1 Needle thread
- 2 Right side of the fabric
- 3 Wrong side of the fabric
- 4 Bobbin thread

Different threads and fabric types may require slight adjustments in the tension. Before making adjustments determine first that the machine is threaded correctly and the proper needle is being used.

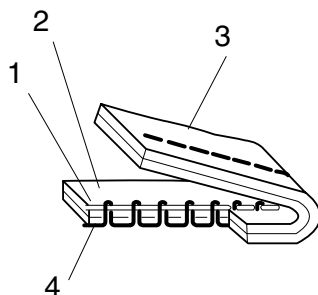
Adjusting the tension

Thread tension may need adjusted for many reasons: Thread weight, fabric type, layers of fabric, needle type and stitch pattern selected.

Before adjusting the tension consult information on the LCD screen for the recommended tension setting for selected stitch pattern.

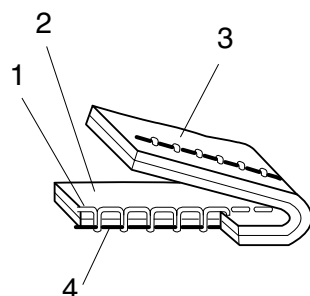


- 5 Setting mark
- 6 Tension control dial
- 7 Recommended tension setting



If needle thread tension is too tight:

The bobbin thread will appear on the right side of the fabric. Loosen the needle thread tension by moving the dial to a lower number.



If needle thread tension is too loose:

The needle thread will appear on the wrong side of the fabric. Tighten the needle thread tension by moving the dial to a higher number.

Adjusting the Presser Foot Pressure

The presser foot pressure dial should be set at “3” for regular sewing.

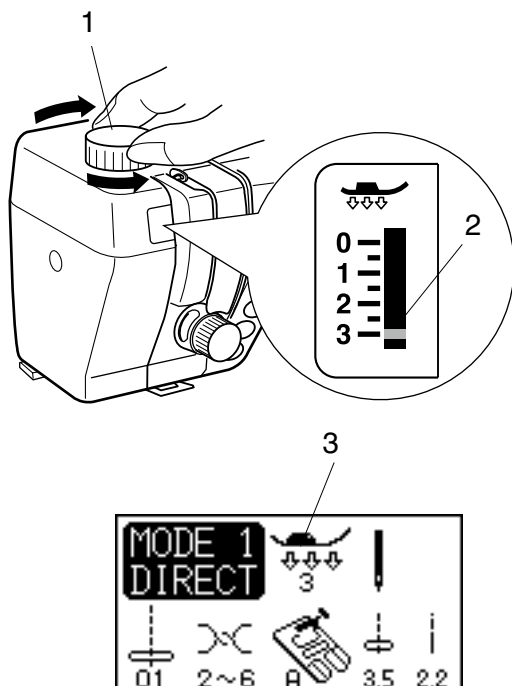
Reduce the pressure for appliqué, sewing on fine synthetics and elastic fabrics.

Set the dial at “1” when sewing on extra fine fabrics.

- 1 Foot pressure dial
- 2 Setting mark
- 3 Recommended setting

NOTE

Do not reduce the foot pressure lower than “0”.



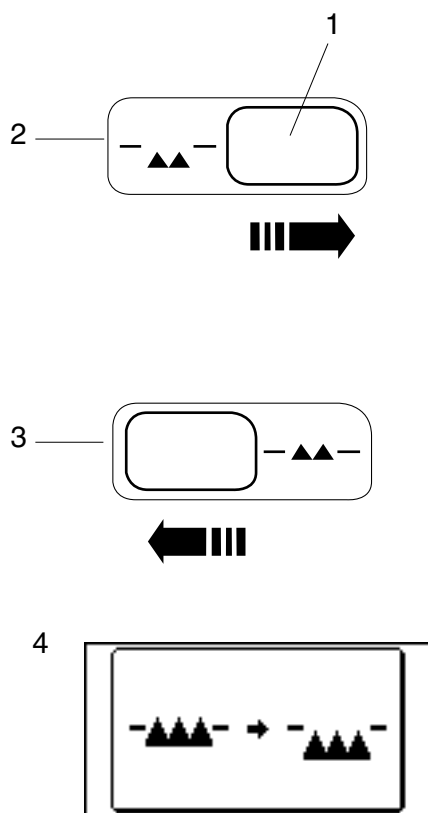
Dropping the Feed Dogs

The feed dogs can be lowered by the drop feed dog control lever.

Move the drop feed control lever to the right to lower the feed dogs.

Move the drop feed control lever. The feed dogs will not physically come up until the handwheel is rotated toward you one full revolution, or until you start to sew.

- 1 Feed dog lever
- 2 Feed dog down
- 3 Feed dog up



Whenever the feed dogs are lowered a message will come up on the LCD screen when foot control is depressed.

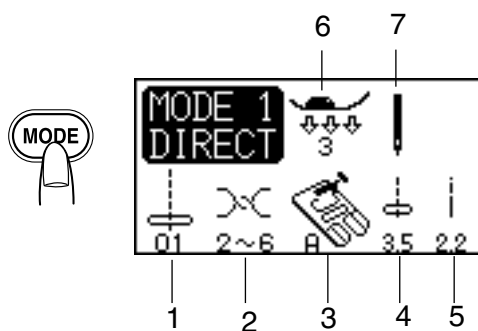
An alarm will beep when starting to sew with the feed dogs down, also. The machine will not sew unless the following stitch patterns are selected.

MODE 1: 01, 02, 08 and 09

MODE 2: 25, 28, 53, 54, 55, 56, 57, and 60.

When these stitch patterns are selected you must press the foot control down again after you hear the alarm and see the message on screen. The machine will not sew with the feed dogs lowered when all other stitch patterns are selected.

- 4 Message on the LCD screen



Selecting the Sewing Mode

On the LCD screen, the mode number and the following information are displayed:

- 1 Stitch pattern
- 2 Recommended thread tension
- 3 Recommended foot
- 4 Stitch width
- 5 Stitch length
- 6 Recommended presser foot pressure
- 7 Single or twin needle setting

Mode 1



Mode 1 Direct:

Contains the 10 most commonly used utility stitches. They can be selected directly from the stitch pattern selection buttons.

Mode 2



Mode 2 Quilt:

Contains the stitch patterns for piecing, applique and much more.

Mode 3



Mode 3 Utility:

Contains 7 buttonholes, more utility stitch patterns and many decorative stitch patterns.

Mode 4



Mode 4 Monogram:

Lettering in Block and Script styles can be programmed here.

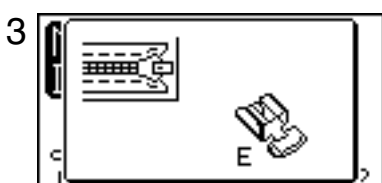
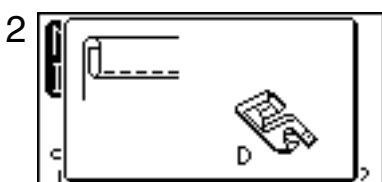
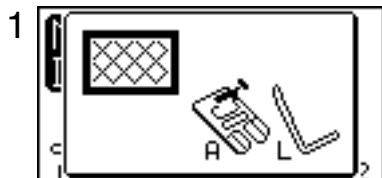


Help Button

The help button is designed to help you remember project options with the stitch pattern selected. Pressing this button will show alternative applications for the selected stitch pattern.

Example: When the stitch pattern 01 from Mode 1 has been selected.

Each time you press the help button, the LCD will show as follows:



Step 1

Press the help button. The general foot and quilting bar for quilting will be shown.

Step 2

Press the help button again. The narrow hemmer foot for narrow hemming will be shown.

Step 3

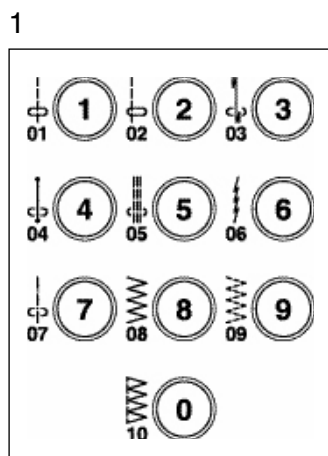
Press the button one more time. The zipper foot for zipper sewing will be shown.

NOTE

The Help ? button only gives recommendations with the stitch pattern numbers in the following modes.

Mode 1: 01, 08, 09, 10

Mode 3: 01, 02, 03, 04, 05, 22



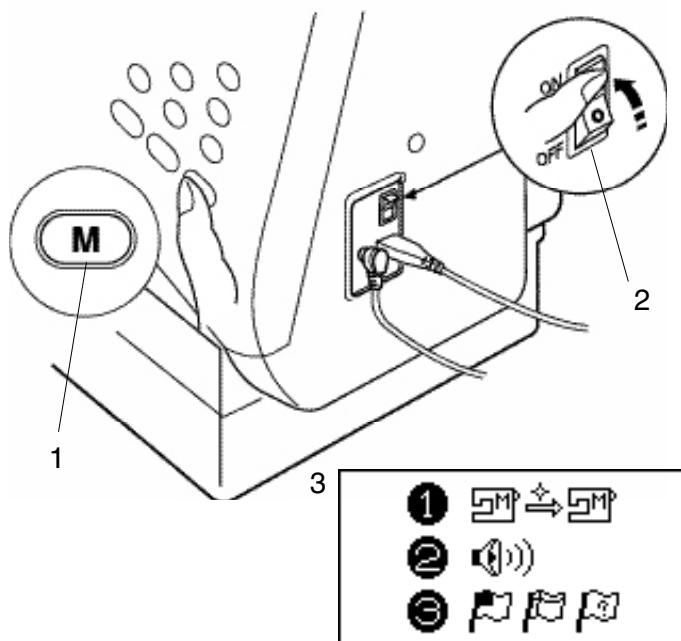
Selecting the Stitch Pattern

Mode 1: Press one of the numeral buttons corresponding to the desired stitch pattern next to it.

Other Modes: Enter the 2-digit pattern number by pressing the number on the buttons.

The LCD screen will show the stitch pattern number, stitch image and then display settings for the stitch pattern.

- 1 Pattern selection buttons
- 2 Pattern number display
- 3 Stitch image display
- 4 LCD display

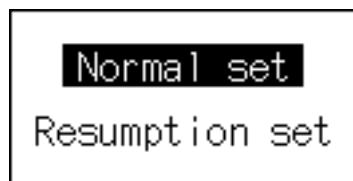
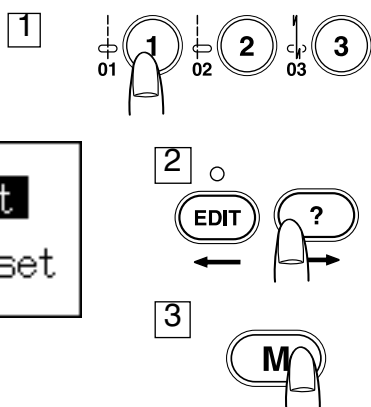


Customizing Machine Settings

You can customize the machine settings to your preference.

Turn the power switch on while pressing the memory button and the LCD screen will show the machine setting window.

- 1 Memory button
- 2 Power switch
- 3 Machine setting window



Resumption setting

The last stitch pattern sewn before turning the power off will be recalled when turning the power on again.

Step 1

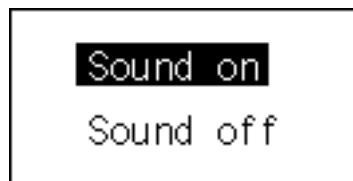
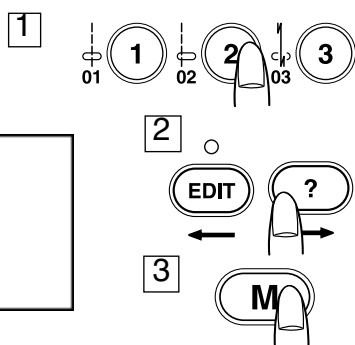
Press the button number 1 and the LCD screen shows: Normal set or Resumption set on the display.

Step 2

Press the editing or help button to select either **Normal** or **Resumption** setting.

Step 3

Press the memory button to confirm your selection.



Sound setting

You can mute a buzzer in normal operation.

Step 1

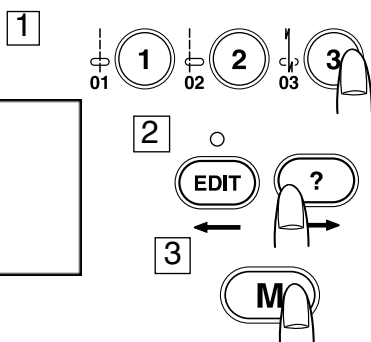
Press the button number 2 and the LCD screen shows sound setting display.

Step 2

Press editing or help button to select sound setting of on or off.

Step 3

Press the memory button to confirm your selection.



Language selection

You can choose one of 10 languages for screen display.

Step 1

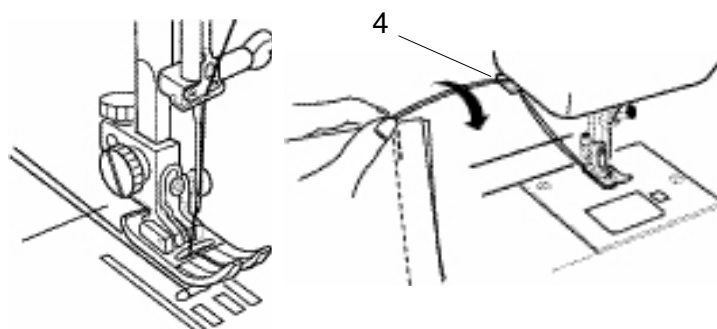
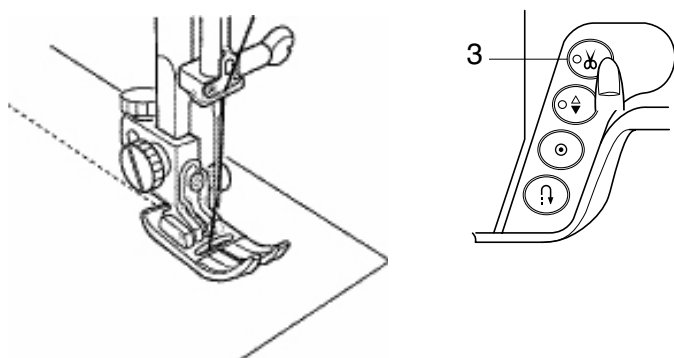
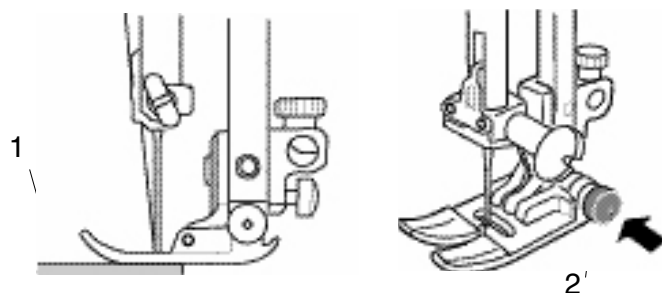
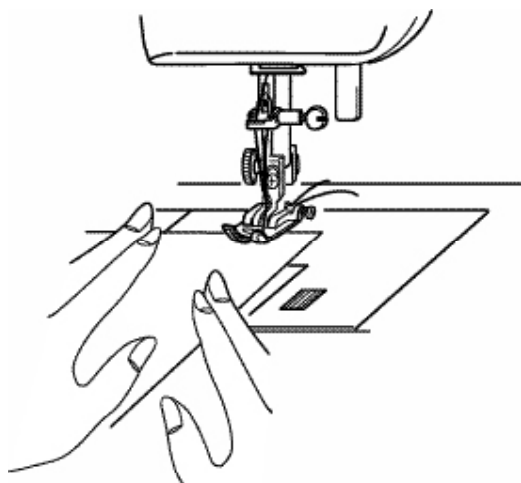
Press the button number 3 and the LCD screen shows language selection display.

Step 2

Press editing or help button to select a language.

Step 3

Press the memory button to confirm your selection.



BASIC STITCHES (Mode 1)

Straight Stitch 01

Machine Setting

Stitch pattern: 01 (Mode 1)
Thread tension: 2-6
Presser foot: General purpose foot A
Foot pressure: 3

How to sew with the straight stitch

Raise the presser foot and position the fabric next to the desired seam guide line on the needle plate. Lower the needle into the fabric where you wish to start sewing.

Pull the needle and bobbin threads under the bottom of the foot to the back of the machine. Lower the presser foot.

Depress the foot control to start sewing. Gently guide the fabric along the seam guide line. Let the presser foot and feed dogs naturally pull the fabric while sewing.

How to start stitching on the edge of thick fabrics

Starting to sew on heavy fabrics at the beginning of a seam can cause the foot to stall and prevent even feeding of the fabric. The black button found on the zigzag foot helps by locking the foot into a horizontal position.

This button will also help when stitching over thick seams when hemming.

Start with the presser foot up. Lower the needle into the fabric at the point where you wish to start sewing.

Lower the foot while pushing the black button in. The foot is now locked in the horizontal position the foot will grab the fabric and move the stitching forward.

- 1 Thick fabrics
- 2 Black button

Securing seams

For securing the ends of seams, press the reverse button and sew several reverse stitches.

The machine sews in reverse as long as you press and hold the reverse button in.

Press the reverse button once when sewing the stitch (pattern 03) or locking stitch (pattern 04) found in Mode 1. The machine will lock the stitch off and stop automatically.

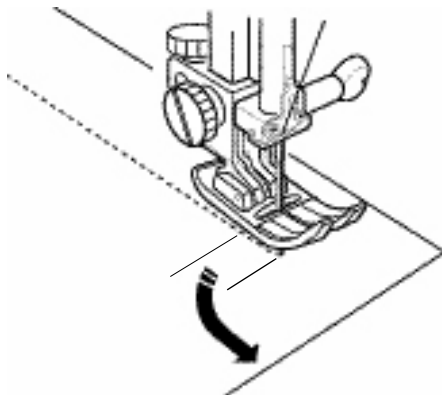
When machine stops select the needle down button and press the thread cutter button to trim the threads.

- 3 Thread cutter button

NOTE

Avoid using the automatic thread cutter when the needle is in the up position. The needle may come unthreaded and the thread spools may spin causing thread to spool off. Use the thread cutter on the face plate to cut the specialty threads or heavy weight threads.

- 4 Thread cutter on face plate



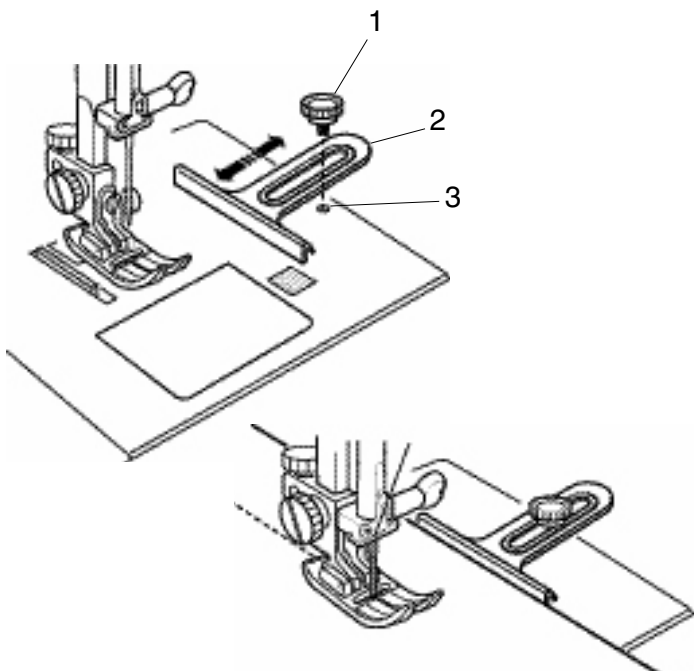
Pivoting a corner

Stop the machine a few stitches before the end of a seam. Press the needle up/down button a few times until the needle falls where you want to pivot.

Raise the presser foot.

Pivot the fabric around the needle to change the sewing direction as desired.

Lower the presser foot and start sewing in a new direction.

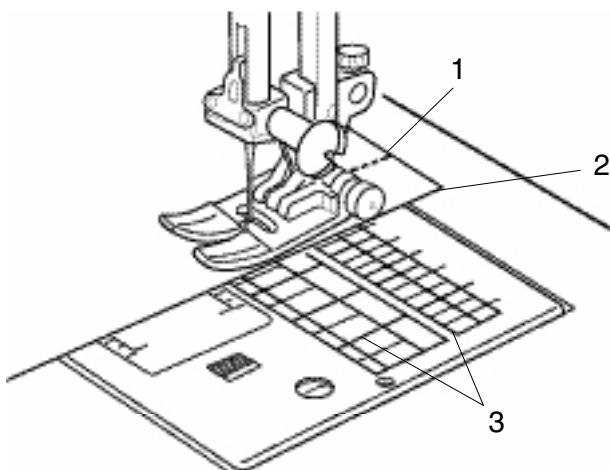


Using the Cloth Guide

Attach the cloth guide on the needle plate with the thumb screw. Adjust the position of the cloth guide and tighten the thumb screw.

Place the fabric with its edge against the cloth guide and sew.

- 1 Screw
- 2 Cloth guide
- 3 Threaded hole



Using the seam guide lines

The seam guidelines on the needle plate and bobbin case cover help you to select the correct seam allowance.

NOTE

The numbers on the needle plate indicate the distance from the center needle position in millimeters and inches.

- 1 Center needle position
- 2 Edge of the fabric
- 3 Guide lines



Adjusting the needle position

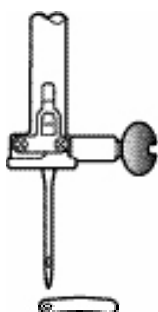
The needle position can be altered by pressing the stitch width adjusting button. The multiple needle movements can give you great stitching control when seaming and topstitching.



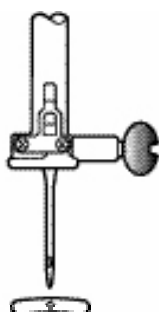
Press the right side of the button (+ sign) to move the needle bar to the right.

Press the left side of the button (- sign) to move the needle bar to the left.

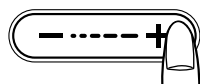
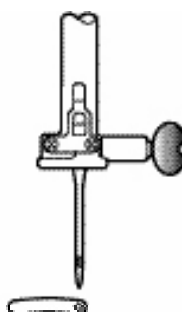
0.0



3.5



7.0

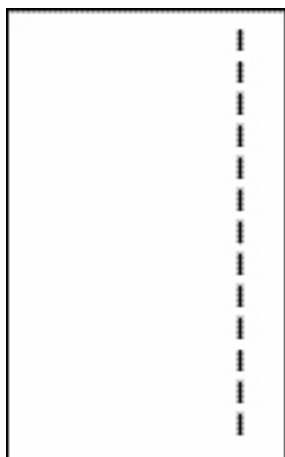


Adjusting the stitch length

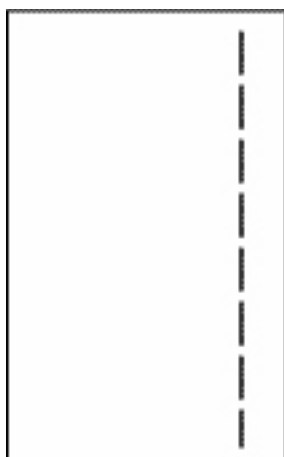
The stitch length can be altered by pressing the stitch length adjusting button.

The stitch length indication will change as pressing the button.

1.0



5.0

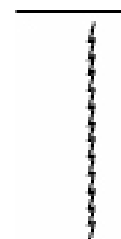
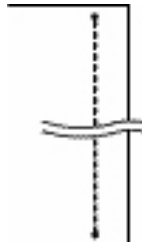
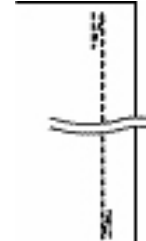


Press the right side of the button (+ sign) to increase the stitch length.

Press the left side of the button (- sign) to decrease the stitch length.

Various Stitch Patterns for Seaming

Choosing from the variety of straight stitch patterns can help you find the best position for the needle when seaming. The locking stitch patterns provide accuracy in locking stitches and make seams more attractive.



Straight stitch 02

This stitch pattern starts the needle in a far left needle position.

A far left needle position can be used to insert a zipper, increase seam width and aide in positioning accurate topstitching.

Straight stitch pattern 03

Use this stitch to secure the beginning and the end of a seam with backstitching.

When you reach the end of the seam, press the reverse button once.

The machine will sew four reverse stitches, four forward stitches, and then stop sewing automatically.

Locking stitch pattern 04

This unique stitch is used where an invisible locking stitch is needed.

Lower the needle into the beginning of the fabric. Start at least 1/8" to 1/4" into the fabric to assure even feeding of the fabric.

The machine will sew several locking stitches in place and continue sewing forward.

When you press the reverse button once at the end of the seam, the machine will sew several locking stitches in place. After the locking stitches the machine will stop.

Triple straight stretch stitch pattern 05

This strong, durable stitch is recommended for areas where both elasticity and strength are needed to ensure comfort and durability.

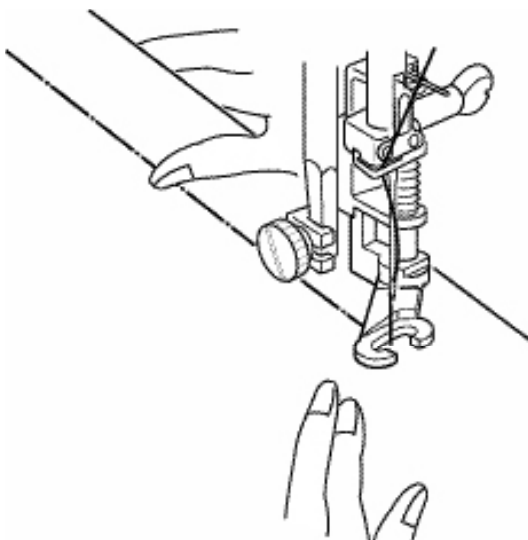
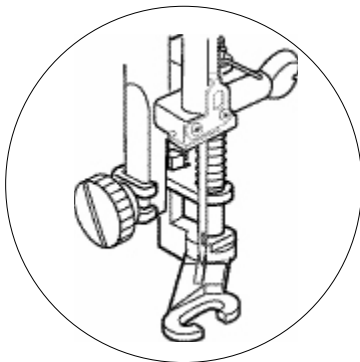
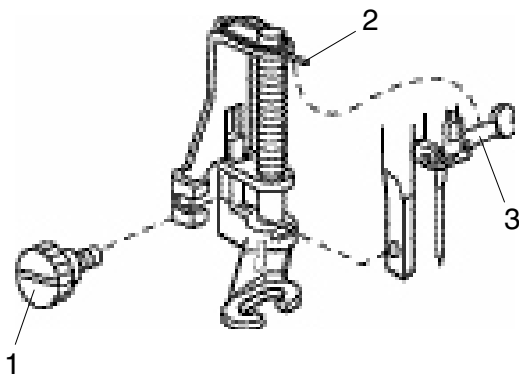
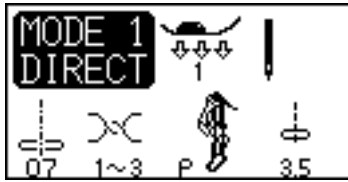
Use it to reinforce areas such as crotch and armhole seams.

No reverse or locking stitch is needed at the beginning or end of a seam sewn with this stretch stitch.

Stretch stitch for seaming 06

This is a narrow stretch stitch designed to seam stretch fabrics or bias seams. The durability of the stitch keeps the seams from puckering or breaking when stretched. The seam can be pressed open and flat.

Basting Stitch Pattern 07



Machine Setting

Stitch pattern:	07 (Mode 1)
Thread tension:	1-3
Presser foot:	Darning/Embroidery foot P-2
Foot pressure:	1
Feed dog:	Dropped

The basting stitch pattern allows you to position and sew straight stitches to baste fabric together. These long stitches are easy to remove after the project is complete. The distance between each stitch is determined by how far the fabric is physically moved by you.

Lower the feed dogs

Set the presser foot pressure dial at "1".

Attaching the darning/embroidery foot P-2

Loosen the thumbscrew and remove the presser foot holder. Attach the darning/embroidery foot **P-2** to the presser bar. The pin located at the top of the foot should rest on top of the needle clamp screw when the needle is in the highest position. Tighten the thumbscrew firmly with the screwdriver.

- 1 Thumbscrew
- 2 Pin
- 3 Needle clamp screw

To sew

Hold both needle and bobbin thread under the foot and to the back.

Depress the foot control. The machine will take one stitch and stop automatically.

Release the foot control.

Hold the fabric taut and slide it to where you want the next stitch.

CAUTION

The knee lifter can be very useful when sewing basting stitches. The lifter allows you to raise the presser foot higher and release the tension completely on the thread. Do not pull the fabric while the needle is forming the stitch. The fabric may deflect the needle causing it to break.



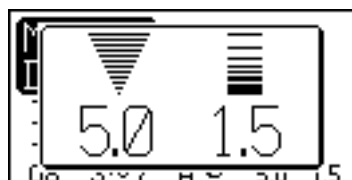
Zigzag Stitch Pattern 08

Machine Setting

Stitch pattern: 08 (Mode 1)
 Thread tension: 3-7
 Presser foot: General purpose foot A
 Foot pressure: 3

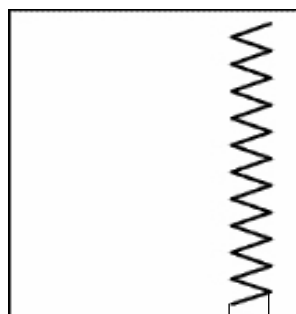
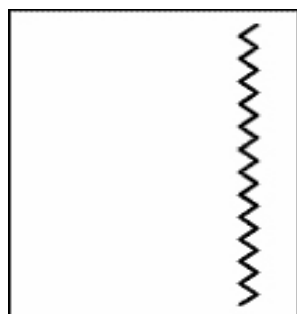
The zigzag stitch pattern is used for various sewing techniques including overcasting.

A dense zigzag stitch pattern is called a satin stitch, and is most commonly used for appliqué. Satin stitching feeds more evenly with the F foot. The foot offers a channel for the compact stitching to travel.



(2.0)

(7.0)



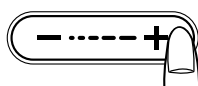
1

Adjusting the stitch width

Press the right side of the button (+ sign) to increase the stitch width.

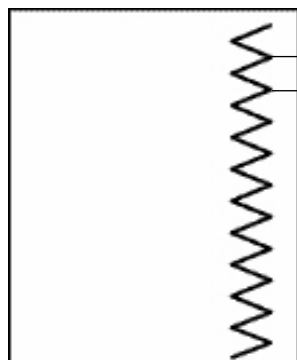
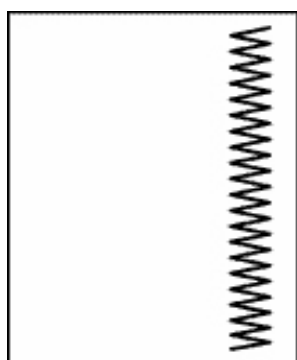
Press the left side of the button (- sign) to decrease the stitch width.

1 Stitch width



(1.0)

(5.0)



2

Adjusting the stitch length

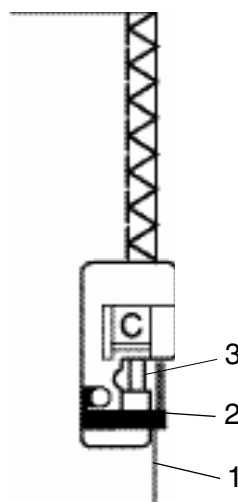
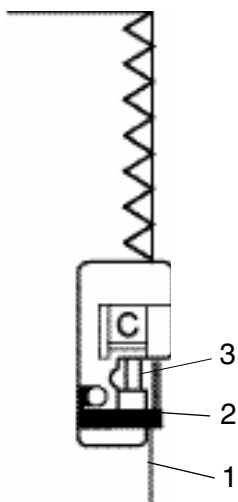
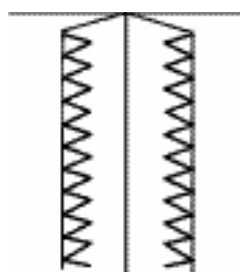
Press the right side of the button (+ sign) to increase the stitch length.

Press the left side of the button (- sign) to decrease the stitch length.

2 Stitch length

NOTE

The stitch length and width can be altered while stitching.



Seam and Overcasting Stitch Patterns (Modes 1 and 3)

Overcasting stitches are used to finish the edges of fabric to prevent fraying. The SINGER® Studio™ S18 sewing machine is equipped with overedge feet designed to create beautiful and flat seam finishes.

Overcasting with zigzag stitch pattern 08

Machine Setting

Stitch pattern: 08 (Mode 1)
Thread tension: 3-7
Presser foot: Overedge foot C
Foot pressure: 3

Place the fabric edge next to the guide of the foot and then sew.

- 1 Edge of fabrics
- 2 Guide of the foot
- 3 Wires on foot

CAUTION:

When using the overedge foot C is on the machine, set the stitch width at 5.0 or wider to prevent the needle from hitting the wires on the foot.

Seam and Overcast stitch pattern 10

Machine Setting

Stitch pattern: 10 (Mode 1)
Thread tension: 3-7
Presser foot: Overedge foot C
Foot pressure: 3

This stitch can be used to simultaneously seam and overcast edges of fabrics.

Place the fabric edge next to the guide of the foot and then sew.

- 1 Edge of fabrics
- 2 Guide
- 3 Wires on foot

CAUTION

When using the overedge foot C, set the stitch width at 5.0 or wider to prevent the needle from hitting the wires on the foot.

Multiple zigzag stitch pattern 09

Machine Setting

Stitch pattern: 09 (Mode 1)
Thread tension: 3-7
Presser foot: General purpose foot A
Foot pressure: 3

This stitch is used to finish a raw edge on synthetics and other stretch fabrics that tend to pucker. The three short stitches created by this stitch pattern make it ideal for mending tears, applying patches and inserting elastic. Sew along the fabric edge leaving an adequate seam allowance. After sewing, trim the seam allowance close to the stitches.

Seam and Overcasting Stitches (Continued)

Knit stitch pattern 01

Machine Setting

Stitch pattern: 01 (Mode 3)
Thread tension: 3-7
Presser foot pressure: 3

This stitch is recommended for sewing such fabrics as synthetic knits and stretch velour as it provides the greatest amount of elasticity and strength.

Sew on a regular 5/8" seam allowance.

After sewing, trim seam allowance close to the stitches.



Double overedge stitch pattern 02

Machine Setting

Stitch pattern: 02 (Mode 3)
Thread tension: 3-7
Presser foot: Overedge foot C
Foot pressure: 3

This is an excellent stitch for fabrics that tend to fray extensively, such as linens and gabardines.

Two rows of zigzag stitches are simultaneously sewn over the edge to insure that the fabric will not unravel.

Place the fabric edge next to the guide of the foot and then sew.

CAUTION

When using the overedge foot C, set the stitch width at 5.0 or wider to prevent the needle from hitting the wires on the foot. For either foot C or M, test the stitch width setting, but be sure to turn the handwheel toward you slowly as you move through the stitch formation. The needle may deflect if settings have been changed.



Overlock stitch pattern 03

Machine Setting

Stitch pattern: 03 (Mode 3)
Thread tension: 6-8
Presser foot: Overcasting foot M
Foot pressure: 3

This stitch finishes the edges of fabric for a professional look. Place the fabric edge next to the guide of the foot and then sew.

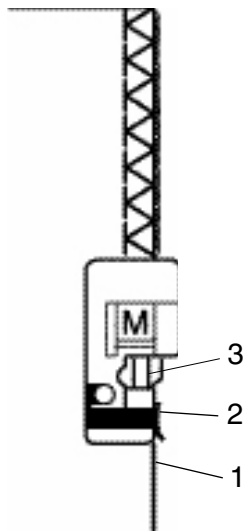
NOTE

The stitch width of this pattern cannot be changed.

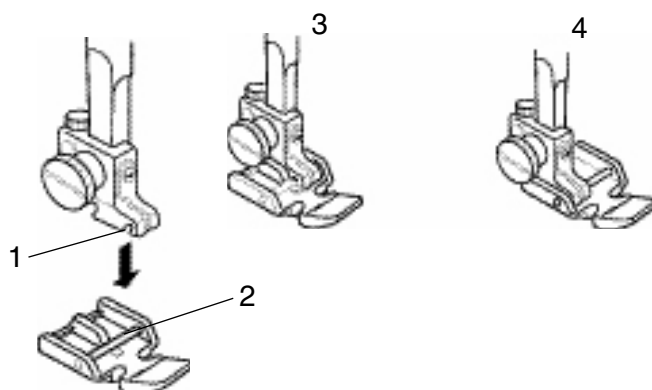
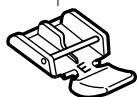
CAUTION

When using the overedge foot C or overcasting foot M, set the zigzag width at 5.0 or wider to prevent the needle from hitting the wires on the foot.

- 1 Edge of fabrics
- 2 Guide
- 3 Wires on foot



Zipper Sewing



Machine Setting

Stitch pattern: 01 (Mode 1)
Thread tension: 2-6
Presser foot: Zipper foot E
Foot pressure: 3

How to attach zipper foot E

Remove presser foot from presser foot holder. Position the pin on the zipper foot under the groove of the presser foot holder. To sew the left side of the zipper, attach zipper foot E with the pin on the right-hand side. To sew the right side of the zipper, attach zipper foot E with the pin on the left-hand side.

Lower presser foot holder and snap onto right or left pin.

- 1 Groove
- 2 Pin
- 3 Zipper foot connected to right side
- 4 Zipper foot connected to left side

How to Insert a Lapped Zipper

Fabric preparation to install a zipper

A lapped zipper is most often used for seam closings on dresses, skirts and pants.

A lapped zipper is also a good choice for zippers that do not match the fabric color because it is concealed.

Step 1

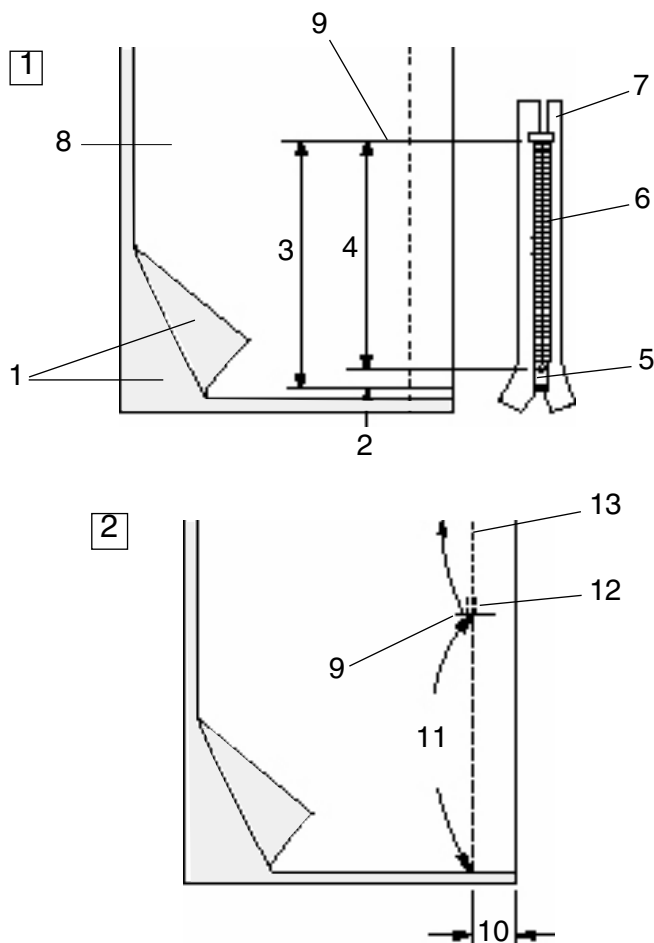
Measure the overall opening in fabric. Zipper purchased should be 3/8" (1cm) longer than then overall opening.(2)

- 1 Right sides of the fabric
- 2 3/8" (1cm)
- 3 Opening size
- 4 Zipper size
- 5 Slider
- 6 Zipper teeth
- 7 Zipper tape
- 8 Wrong side of the fabric
- 9 End of the zipper opening

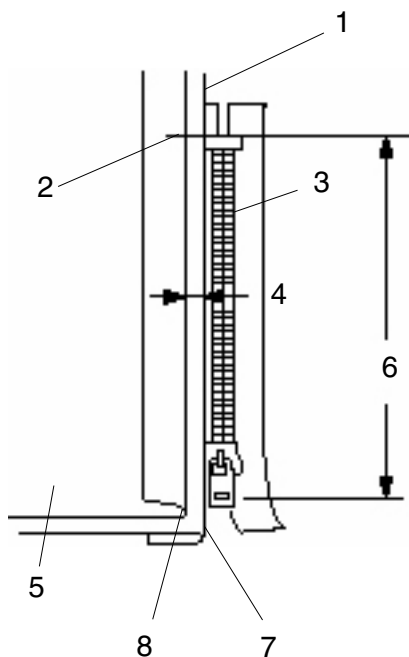
Step 2

With the right sides of the fabric together reinforce with a reverse stitch at the end of the zipper opening. (9) Baste with a straight stitch the remaining seam with a long stitch length and loosened thread tension. The loose tension will make it easy to remove the stitches after zipper insertion. (11)

- 10 Seam allowance
- 11 Basting
- 12 Reverse stitches



3

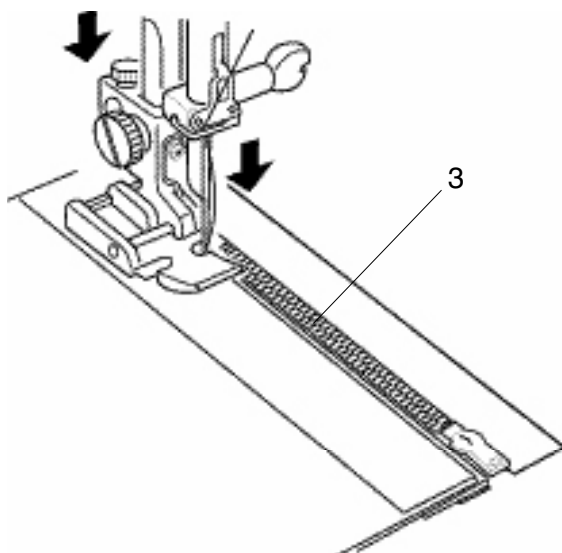


Step 3

Fold back the left seam allowance. Fold the right seam allowance under to form a 1/8" (0.2 to 0.3cm) fold. Position the zipper teeth next to the fold and secure in place with pins.

- 1 Lower fabric
- 2 End of the opening
- 3 Zipper teeth
- 4 1/8" (0.2 to 0.3cm) fold
- 5 Right side of the upper fabric
- 6 Opening size
- 7 Fold
- 8 Seam with basting stitches

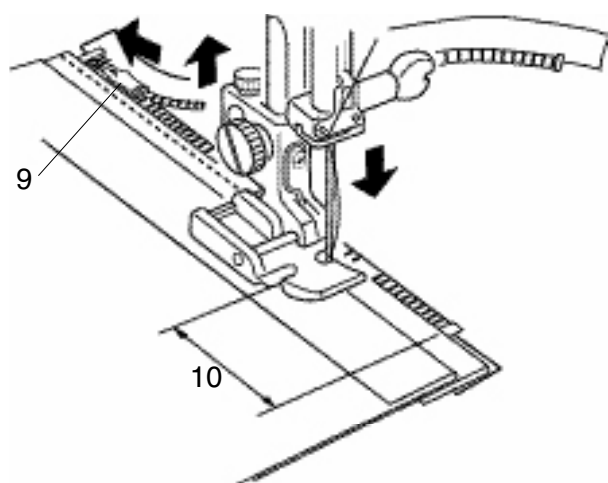
4



Step 4

Set the stitch length and thread tension back to the original settings on the sewing machine. Attach zipper foot E with the pin on the right side. Lower the foot onto the fold on the left side. Start stitching at the end of the opening (2). Position the needle so that the needle pierces the fabric next to the fold and into the zipper tape.

5

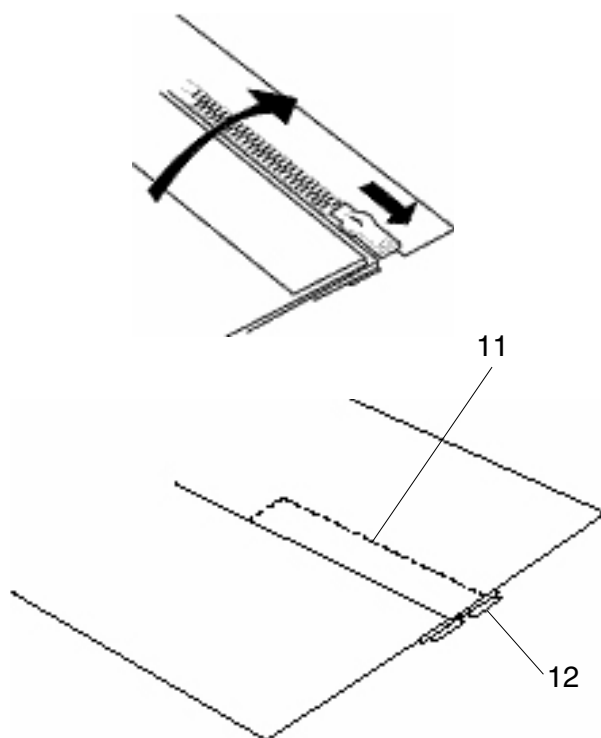


Step 5

Stitch up the zipper on the fold. Stop stitching 2" (5cm) before zipper foot E reaches the slider on the zipper tape. Lower the needle slightly into the fabric. Raise the foot and open the zipper. Lower the foot and stitch the remainder of the seam.

- 9 Slider
- 10 2" (5cm) before the top of seam.

6

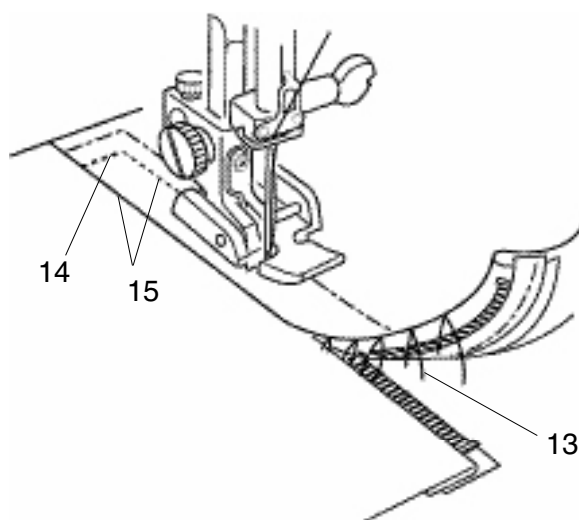


Step 6

Close the zipper right side of seam allowance up. Be sure to have the left seam allowances open and flat (12) spread right seam allowance flat. From the right side baste the fabric and zipper tape together with foot A. Refer to Step 2 for machine baste set up.

- 11 Basting
- 12 Zipper tape under the seam allowance

7

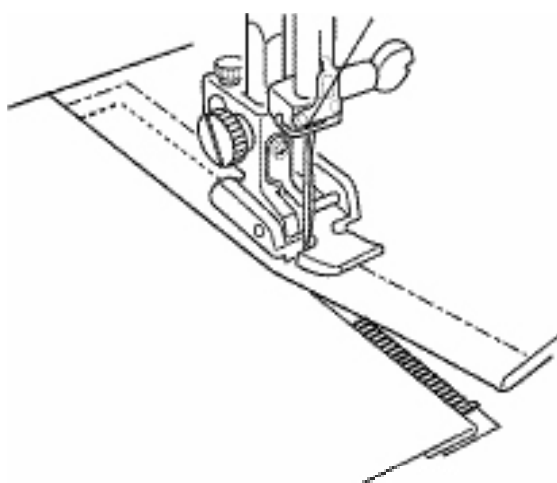


Step 7

Position foot at the bottom of the zipper. Check that the needle is positioned to sew just below the zipper stop. Start topstitching at the seam and stitch 3/8" (1 cm). Rotate needle to topstitch close to the zipper coil almost to the top of the garment. Stop 2" (5 cm) from the top of the zipper. Lower the needle slightly into the fabric. Raise the foot and open the zipper. Lower the foot and stitch the remainder of the seam.

- 13 Basting stitches
- 14 Bottom of zipper 3/8" (1 cm)
- 15 Topstitching to top of zipper. Stitching is 3/8" (1 cm) from the seam.

8



Step 8

Remove all basting stitches.



Narrow Hemming with Narrow Hemmer Foot

Machine Setting

Stitch pattern: 01 (Mode 1)

Thread tension: 2-6

Presser foot: Narrow hemmer foot D

Foot pressure: 3

Pre-folding and trimming of fabric will help facilitate an easier start with the narrow hemmer foot.

Fold the edge of the fabric over 1/8 inch twice for a total of 1/4 inch. Finger press folded edge for 2 inches.

Open fold and trim fabric as seen in Diagram (1). (2) by 1/4 inch (3) for easier insertion of the hem into the foot.

Refold the fabric and position under the foot.

Insert the needle into the fold by rotating the handwheel toward you and lower the presser foot. Sew several stitches and raise the presser foot. If needed hold onto tails of machine thread. Insert the fabric fold into the spiral opening of the foot (4). Move fabric back and forth until the fold forms a scroll shape.

Lower the presser foot and start sewing. Slowly guide the raw edge of the fabric in front of the narrow hemming foot. Guide fabric evenly into the scroll of the foot.

To sew

Fold the edge of the fabric twice, 2-3/8" (6 cm) in length and 1/8" (0.3 cm) in width.

Trim the corner 3/16" (0.5 cm) by 1/4" (0.8 cm) for easier insertion of the hem into the foot.

- 1 Wrong side of the fabric
- 2 3/16" (0.5 cm)
- 3 1/4" (0.8 cm)
- 4 Curl of the foot

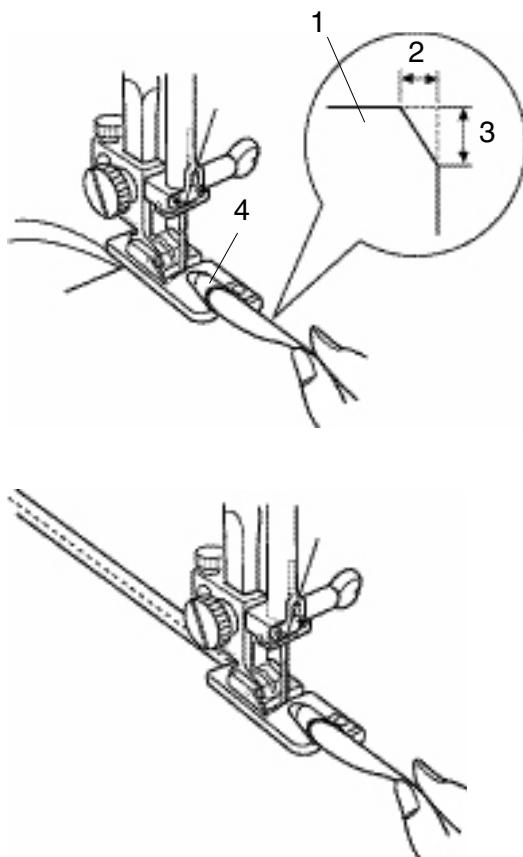
Place the fabric aligning the edge of hem with the guide on the foot.

Lower the foot and sew to 1/2"-1" (1-2 cm) while pulling both thread to the back.

Stop the machine and lower the needle into the fabric.

Raise the foot and insert the folded portion of the fabric into the curl of the foot.

Lower the foot, and then sew by lifting up the edge of the fabric to keep it feeding smoothly and evenly.

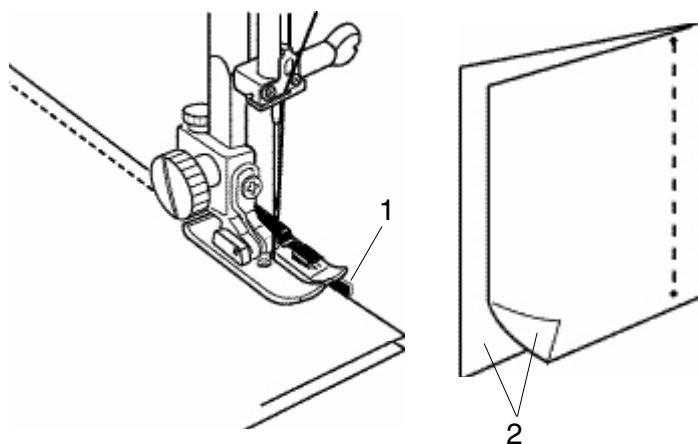
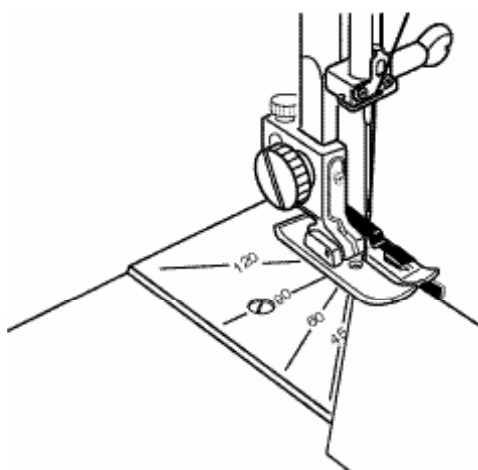


PIECING AND QUILTING (Mode 2)

Piecing with Quarter Inch Seams

Angle scale on the needle plate



Your needle plate is marked with 4 common angles sewn in piecing. The angle scales are marked at 45, 60, 90 and 120 degrees. Attach the quarter inch foot with guide O on the presser foot holder. Select stitch pattern 11 in Mode 2. Align the angle of the cut fabrics with the desired angle on the needle plate. Lower the needle into the fabric and sew an exact 1/4" seam.



Locked Quarter Inch Seams

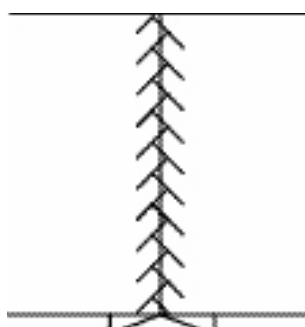
Machine Setting

Stitch pattern: 11 (Mode 2)
Thread tension: 2-6
Presser foot: Quarter inch foot with guide O
Foot pressure: 3

Stitch pattern 03  and auto lock stitch pattern 04  in Mode 1 are ideal for seaming fabric pieces together.

Place the fabric pieces right sides together. Align needle into fabric 1/8" into the seam. Start sewing and guiding the edge of the fabric along the guide on the foot to keep a precise 1/4" seam allowance.

- 1 Guide
- 2 Right sides of the fabric



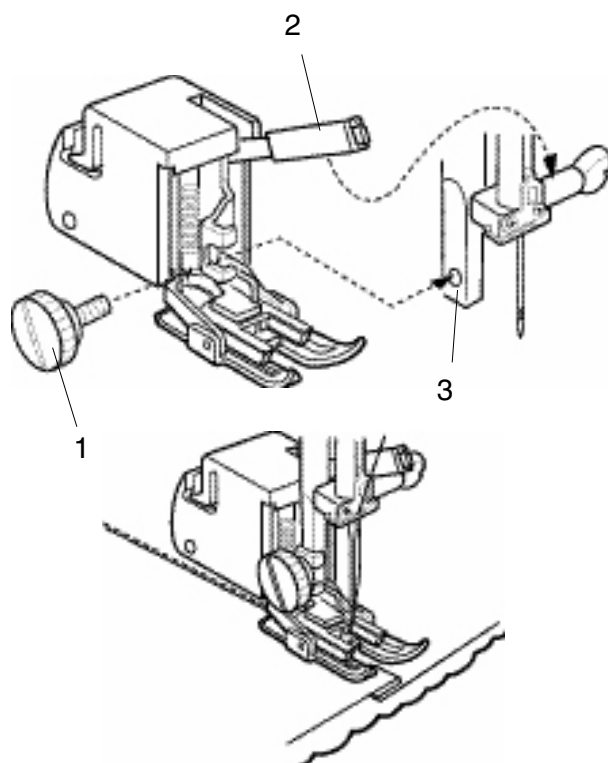
Decorative Stitch Patterns for Quilting

Use machine decorative stitches to embellish quilts.

Machine Setting

Stitch pattern: See below
Thread tension: 1-4
Presser foot: Satin stitch foot F
Foot pressure: 2-3

The decorative stitch patterns 28-32 and 61-68 in Mode 2 can be used to replicate decorative hand stitching. Open seam flat with the right side of the fabric up. Sew decorative stitch patterns over the seam line.



Even Feed / Walking Foot

Quilting the pieced top, batting and backing are often done by stitching in the ditch with the even feed / walking foot. The open toe on this foot offers an unrestricted view when stitching in the seams of quilts.

How to attach even feed / walking foot

Remove the presser foot holder.

Attach the even feed / walking foot to the presser bar.

Position the arm lever of the foot resting on the needle clamp screw. Tighten the thumb screw with screwdriver.

- 1 Thumb screw
- 2 Arm lever
- 3 Presser bar

How to Stitch in the Ditch

Position needle in the seam line of the pieced top. Stitch down the seamline.



How to Channel Quilt with Quilting Bar

Channel quilting is sewing parallel rows of stitches while quilting multiple layers of fabric. The even feed / walking foot with the quilting bar attached helps sew straight and evenly spaced rows on the quilt.

Machine Setting

Stitch pattern: 11 Mode 2

Thread tension: 2-6

Presser foot: Even feed/Walking foot and quilting bar

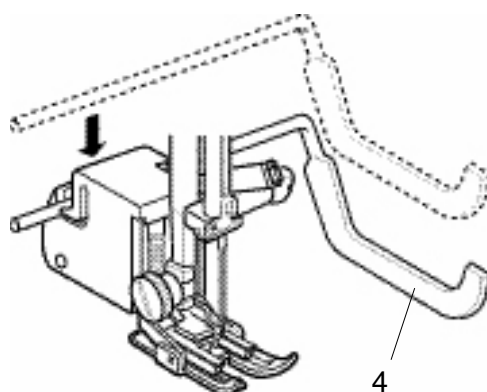
Foot pressure: 3

How to attach quilting bar to Even feed / Walking foot:

Push the quilting bar down into the slot on the plastic cover on the back of the even feed/walking foot.

Move the quilting bar to the right to set the spacing of seam.

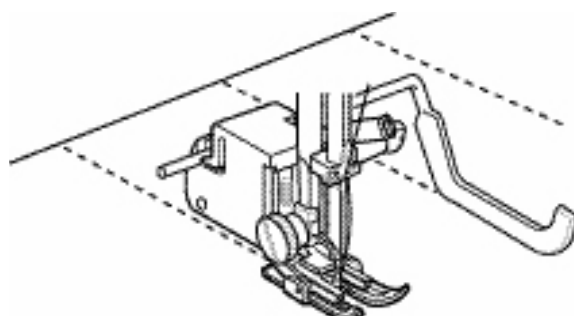
- 4 Quilting bar for even feed / walking foot

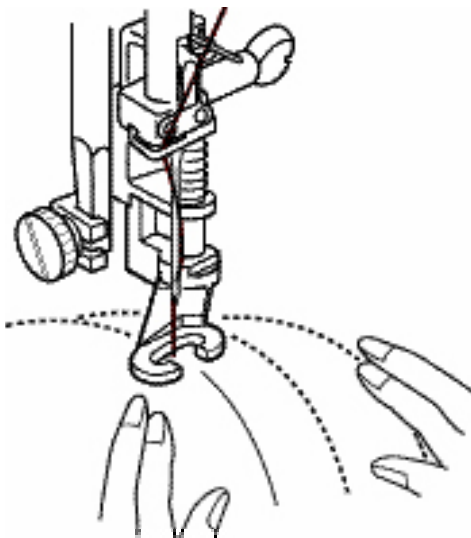
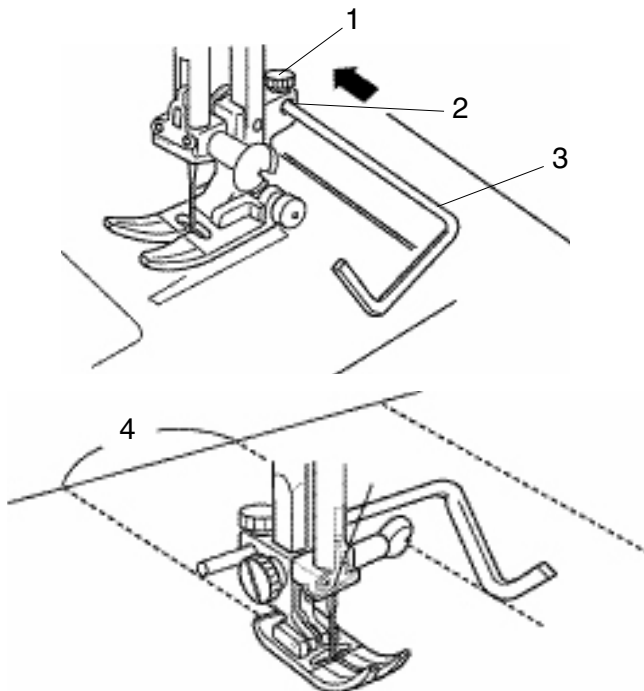


How to align rows while stitching

Mark the first row of stitching on the fabric using a fabric marking tool appropriate for the fabric being sewn. Turn the quilting bar up and away from the fabric. Stitch on the marked line.

Start next row by lowering the quilting bar onto the first row stitched. Sew while keeping the bar on that previous row of stitching.





Quilting Options

Edge Guide/Quilting Bar

This quilt bar attaches to the back of the presser foot holder. This allows you to use this accessory with a variety of feet. Select the best foot for the stitch pattern you want to sew. The bar can also be used as an edge guide for sewing deep hems.

Machine Setting

Stitch pattern: 01 (Mode 1)
Thread tension: 2-6
Presser foot: General purpose foot A
Foot pressure: 2

Reduce the presser foot pressure to "2" for better maneuverability if sewing on bulky fabric.

How to attach bar

Loosen the screw on the back of the presser foot holder. Insert the quilting bar into the opening and slide the quilting bar to set the width of the seams.

Tighten the screw.

- 1 Screw
- 2 Opening on the presser foot holder
- 3 Quilting bar
- 4 Space of the seams

How to Sew

Mark the first row of stitching on the fabric using a fabric marking tool appropriate for the fabric being sewn. Turn the quilting bar up and away from the fabric. Stitch on the marked line.

Start next row by lowering the quilting bar onto the first row stitched. Sew while keeping the bar on that previous row of stitching.

Free-motion Quilting

Quilting the multiple layers of a quilt can be done with free-motion sewing. Free-motion sewing movement is done with feed dogs dropped. Stitches are formed while moving the fabric manually. A common type of free-motion sewing is stipple quilting.

Machine Setting

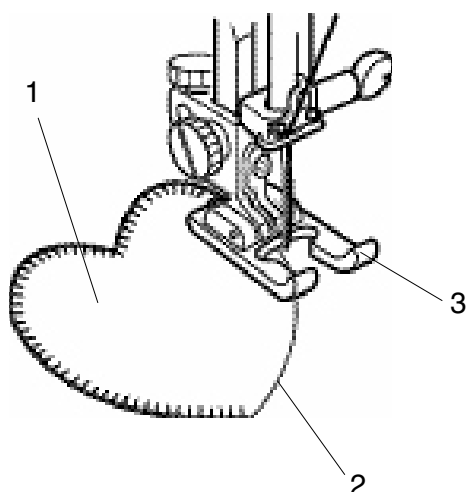
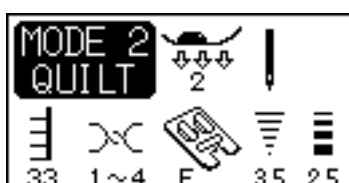
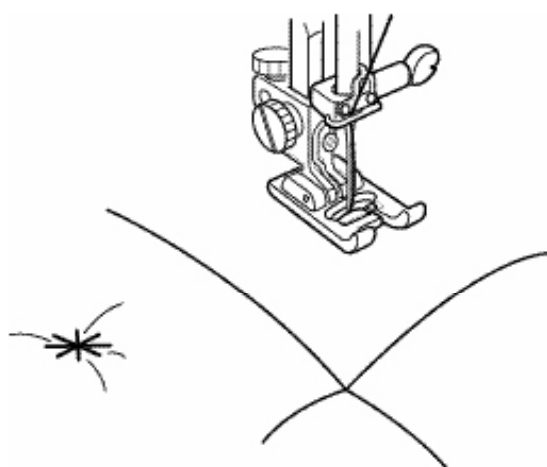
Stitch pattern: 11 (Mode 2)
Thread tension: 2-6
Presser foot: Darning/Embroidery foot P-2
Foot pressure: 1
Feed dog: Dropped

Attach the Darning/Embroidery foot P-2.
Turn to page 31 for how to attach the foot.

Baste or pin the multiple layers of the quilt together. Draw a quilt design on the top fabric with a fabric marker appropriate for the type of fabric being stitched. Move the quilt layers slowly and evenly under the foot while stitching on the marked design. The distance between stitches should be approximately 1/8".

CAUTION

Do not pull the fabric while stitching. This may deflect the needle causing it to break.



Clasp Stitch

A popular method to hand quilt multiple layers of a quilt is a method called hand tying. Using the clasp stitch can simulate the hand stitch and speed up the process usually done by hand.

Machine Setting

Stitch pattern: 70 (Mode 2)
Thread tension: 3-6
Presser foot: Satin stitch foot F
Foot pressure: 2-3

Program machine

Select stitch pattern 70
Select the memory button
Select the lock stitch button



Position foot where stitch pattern needs to go. Lower the presser foot and start sewing. The machine will automatically stop after sewing one clasp stitch. Raise the presser foot and move the fabric to the next position.

Appliqué

Quilts are often embellished by adding appliqué. Although applique is commonly done with a satin stitch, another popular stitch type to use is a blanket stitch.

Machine Setting

Stitch pattern: 33 (Mode 2)
Thread tension: 1-4
Presser foot: Satin stitch foot F or F-2
Foot pressure: 2

The open toe satin stitch foot F-2 offers better visibility when moving around an appliqué.

Place an applique on the fabric and baste it in place or use a fusible web to secure the applique in place. Position the foot so that the needle falls off the edge of the applique when the needle swings to the right.

- 1 Appliqué
- 2 Edge of the appliqué
- 3 Open toe satin stitch foot F-2

Stitch pattern 33 is only one of 5 different blanket stitch patterns available. Try 34, 35, 36, and 37.

UTILITY STITCH PATTERNS (Mode 3)

Buttonholes

The 7 different styles of buttonholes will give you the buttonhole that fits your project.

Sensor



11

11 Sensor Buttonhole

This bartack buttonhole is widely used on medium to heavy weight fabrics.

The buttonhole size is automatically determined by placing a button in the foot.

Auto



12

12 Automatic Buttonhole

This is also a bartack buttonhole similar to the sensor buttonhole, but you can manually set and memorize the buttonhole size to sew buttonholes of the same size.

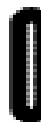
This buttonhole is useful for bulky fabrics or when sewing on uneven layers.



13

13 Round End Buttonhole

This buttonhole is used on fine to medium weight fabrics and is excellent for blouses and children's clothing.



14

14 Fine Fabric Buttonhole

This buttonhole is rounded at both ends and is used on delicate fabrics such as fine silks.



15

15 Keyhole Buttonhole

The keyhole buttonhole is widely used on heavy weight fabrics. The large opening of this buttonhole makes it suitable for larger and thicker buttons.



16

16 Stretch Buttonhole

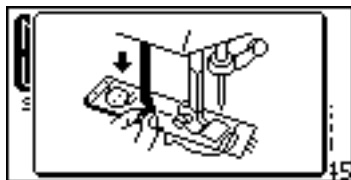
This buttonhole keeps the stitching stable in stretch fabrics. It can also be used as an interesting decorative buttonhole.



17

17 Knit Buttonhole

This buttonhole is suitable for knit fabrics. This style of buttonhole stabilizes the stretch of knitted fabrics. Use this buttonhole to add interest to a garment or crafting project.



Sewing sensor buttonholes

Buttonholes 11 and 13 to 17 are sensor buttonholes.

The buttonhole size is automatically determined by placing a button in the foot.

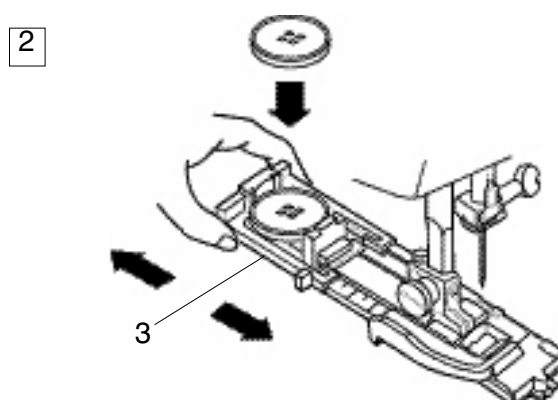
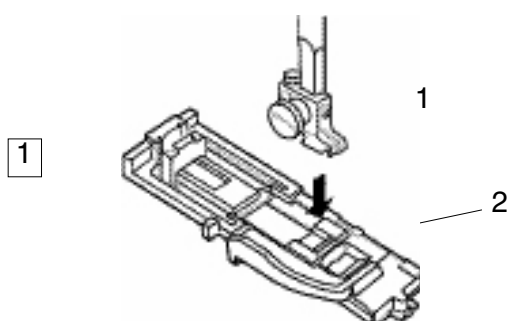
Buttonhole Tips

The button holder of the foot takes a button size of 3/16" (0.5cm) to 1" (2.5cm) in diameter.

It is sometimes necessary to change the buttonhole's size to match fabric, button size and threads in a project.

Make a test buttonhole on an extra piece of the fabric to check your settings. If the buttonhole size needs adjustment, just increase the distance where the button sits in the foot.

For best results when sewing buttonholes, use a stabilizer. Simply add a tear-a-way stabilizer on the back side of the fabric when sewing buttonholes.



How to sew

This buttonhole is widely used on medium to heavy weight fabrics.

Machine Setting

Stitch pattern: 11 (Mode 3)

Thread tension: 1-5

Presser foot: Automatic buttonhole foot R

Foot pressure: 3

Step 1

Select stitch number 11.

Attach the automatic buttonhole foot R snapping the pin into the groove of the presser foot holder.

1 Groove

2 Pin

Step 2

Pull the button holder to the back. Place the button in holder. Snug the back of the holder against the button.

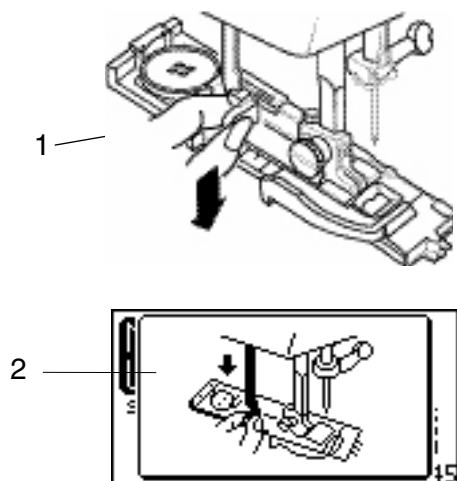
Size of button

If the button is extremely thick, make a test buttonhole on an extra piece of the fabric to confirm the button will pass through the buttonhole opening.

If it is difficult to fit the button through the test buttonhole, you can lengthen the buttonhole by pulling the button holder back a little. The length of the buttonhole will be increased.

3 Button holder

3



Step 3

Pull the buttonhole lever down as far as it will go.

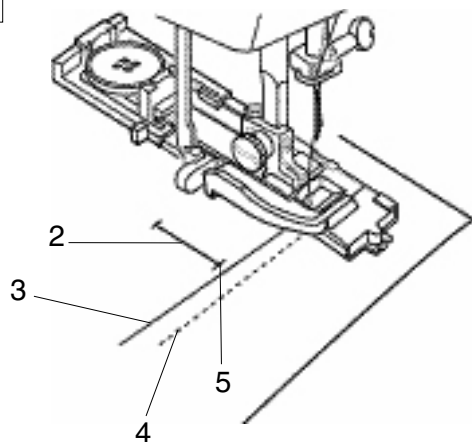
1 Buttonhole lever

NOTE

If you start sewing without pulling down the buttonhole lever, the LCD screen will display a message, the machine will sound a warning and sewing will stop after a few stitches. Pull the buttonhole lever down and continue sewing.

2 LCD screen warning

4



Step 4

Place a scrap piece of the fabric under the foot. Press the needle up/down button twice.

Remove the scrap to the left to draw the needle thread through the hole of the foot.

Place the project under the foot, and lower the needle at the starting point of the buttonhole mark.

Then lower the automatic buttonhole foot R.

2 Buttonhole mark

3 Needle thread under the foot

4 Bobbin thread under the fabric

5 Starting point of buttonhole

NOTE

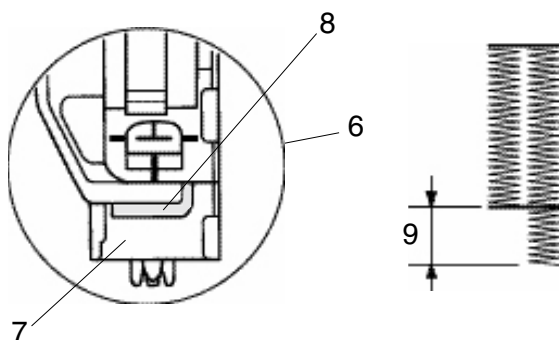
Make sure there is no gap between the slider and spring holder when the buttonhole foot is lowered, otherwise the left and right sides of the buttonhole will be different.

6 Slider

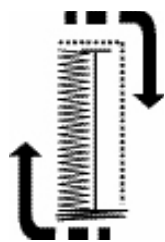
7 Spring holder

8 Sewing gap

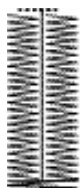
9 Different length



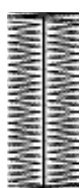
5



Step 1



Step 2



Step 3

Step 5

Start the machine to sew the buttonhole.
The buttonhole will be automatically sewn.


Step 1: The machine will sew the front bartack and the left row first.
Then it stitches back to the starting point with a straight stitch.

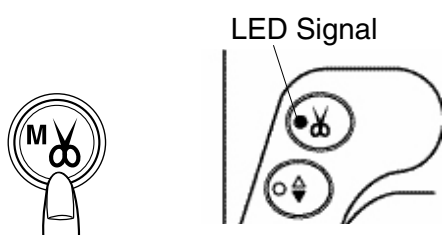
Step 2: The machine will now sew the right row.

Step 3: The machine will sew the back bartack, and the machine will stop automatically.

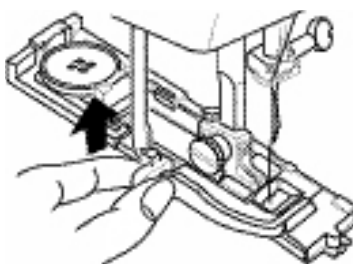
To sew another buttonhole, press the thread cutter button and raise the presser foot. Reposition fabric to the next buttonhole mark. Lower needle into starting point. Lower the presser foot and sew an identical buttonhole as the first.

Auto thread cutter

If you press the auto thread cutter button  after selecting a buttonhole, the LED signal will turn on. The machine will stop automatically and trim the threads when the buttonhole is completed.



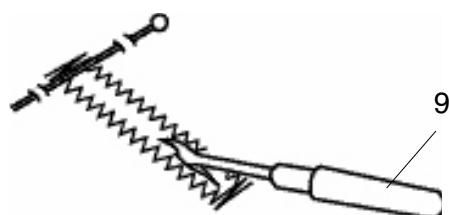
6



Step 6

When buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.

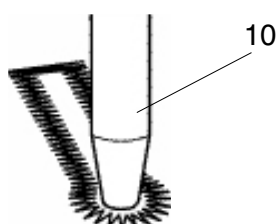
7



Step 7

Remove the fabric and place a pin just below the bartack at each end to prevent accidentally cutting stitches. Cut the opening with the seam ripper. Use an eyelet puncher to open a keyhole buttonhole.

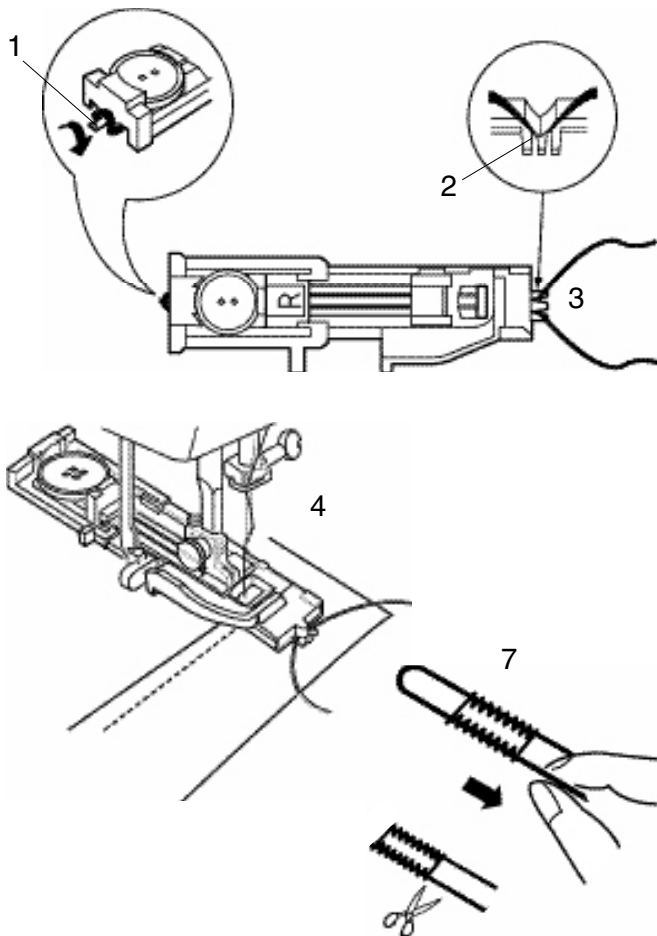
- 9 Seam ripper
- 10 Eyelet punch



Corded buttonhole

To sew a corded buttonhole, follow the same machine set up and sewing procedure as with sensor buttonhole 11. Sewing over a cord when stitching a buttonhole provides stability in unstable fabrics. Buttonholes in loosely woven and stretch fabrics will remain stable after many washes using this application.

Pearl cotton, topstitching thread, etc, can be used for cord. Use a cord that matches either the fabric or the thread for stitching the buttonhole.



Step 1

With the automatic buttonhole foot R raised, hook the filler cord on the small extension at the back of the buttonhole foot.

Step 2

Bring the ends of cord toward you under the buttonhole foot clearing the front end.

Step 3

Hook the ends of the filler cord into the forks on the front of buttonhole foot to hold them tight.

- 1 extension
- 2 Forks

Step 4

Lower the needle into the garment where the buttonhole will start.

Step 5

Lower the buttonhole foot first and lower the buttonhole lever second. Start the machine and sew the buttonhole over the filler cord.

The machine stops automatically when finished.

Step 6

Remove the fabric from the machine and cut the sewing threads.

Step 7

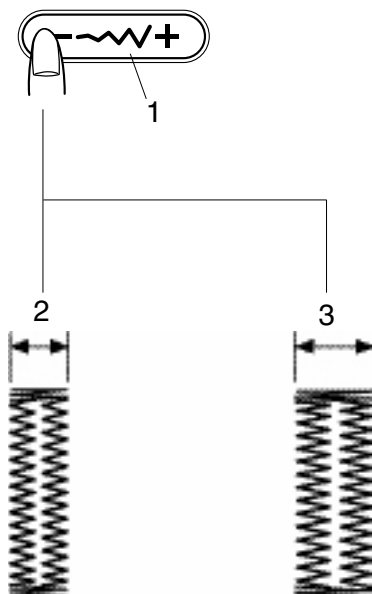
Pull the left end of the filler cord to remove slack at the top of the buttonhole.

Thread the end of the cords through a darning needle and draw them to the wrong side of the fabric. Tie to secure, then trim away excess cords.

NOTES

You may have to increase the stitch width to accommodate for the thickness of the filler cord used.

To cut the buttonhole opening, refer to page 46.



Changing buttonhole width

Press the stitch width adjusting button and the adjusting window opens.

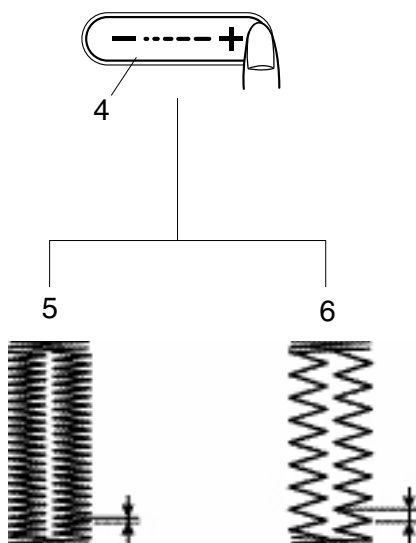
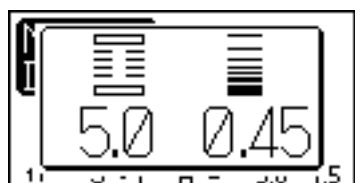
Press on "+" to increase the buttonhole width.

Press on "-" to decrease the buttonhole width.

1 Stitch width adjusting button

2 Narrower buttonhole

3 Wider buttonhole



Changing buttonhole stitch density

Press the stitch length adjusting button, the adjusting window opens.

Press on "+" to make the buttonhole stitch closer

Press on "-" to make the buttonhole stitch denser.

4 Stitch length adjusting button

5 Denser buttonhole

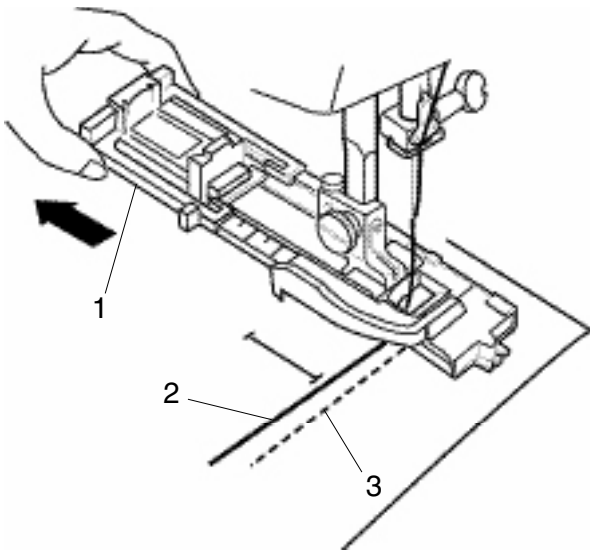
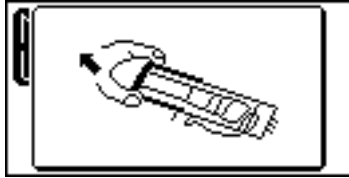
6 Less dense buttonhole

To alter the buttonhole width and density while sewing a test buttonhole, stop the machine at the left or right row of the buttonhole. Adjust the stitch width and density to find the appropriate settings. Test buttonhole again.

Buttonhole tip:

Now press the memory button so that you can sew a buttonhole with the new settings.

The setting will return to the default when turning the power switch off or selecting another stitch.



Automatic buttonhole

This is also a bartack buttonhole similar to the sensor bartack buttonhole, but you can manually set and memorize the buttonhole size to sew buttonholes of the same size. This buttonhole is useful for bulky fabrics or when sewing on uneven layers.

Machine Setting

Stitch pattern: 12 (Mode 3)
Thread tension: 1-5
Presser foot: Automatic buttonhole foot R
Foot pressure: 3

When you select stitch pattern 12, you will see a window open on screen. The picture is a reminder to pull the button holder of the buttonhole foot all the way out. You do not need to pull down the buttonhole lever when making automatic buttonholes. For best results when sewing buttonholes, use a stabilizer. Simply add a tear-a-way stabilizer on the back side of the fabric when sewing buttonholes.

Step 1

Insert the fabric under the foot. Press the needle up/down button twice.
Remove the fabric to the left to draw the needle thread through the hole of the foot.

Step 2

Insert the garment under the foot, and lower the needle at the starting point.
Then lower the automatic buttonhole foot R.

- 1 Button holder
- 2 Needle thread
- 3 Bobbin thread

Buttonhole Tips

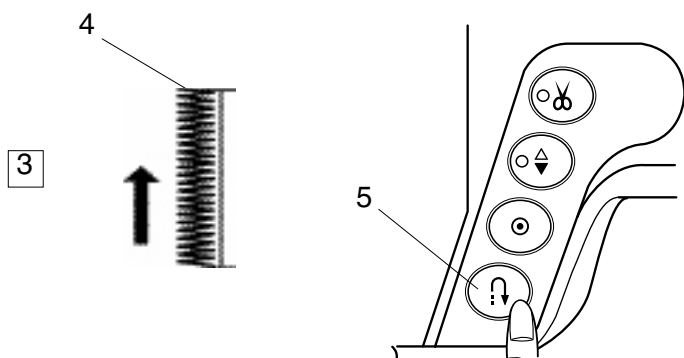
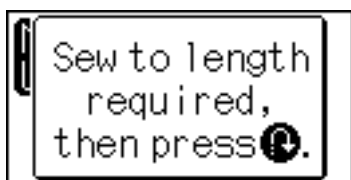
Insert the garment under the foot, and lower the needle at the starting point.

Then lower the automatic buttonhole foot R.

If you wish to change the buttonhole width and density press the stitch width and length buttons.

If there is a difference in stitch density between the right and left sides of the buttonhole, refer to page 70 for correction.

If you wish to sew a buttonhole longer than the size permitted by the automatic buttonhole foot R, use satin stitch foot F.



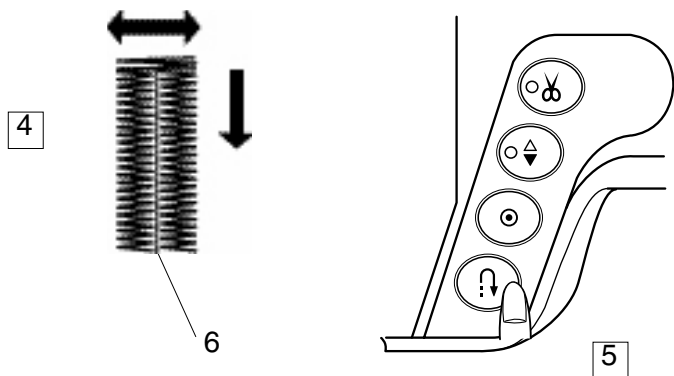
Step 3

Depress the foot control to sew the left side up to the required length of the buttonhole.

Stop the machine and press the reverse button.

4 Required length

5 Reverse button



Step 4

Depress the foot control to sew the right side of buttonhole. The machine will automatically bartack and sew down the right side of the buttonhole.

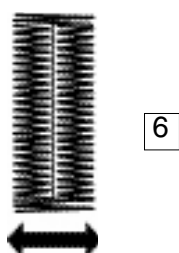
Step 5

Stop the machine when you are directly opposite the starting point.

Press the reverse button.

6 Starting point

7 Bartack and lock stitches



Keep the foot control depressed. The machine will sew a bartack, lock the stitches and automatically stop when the buttonhole is completed.

To repeat this size buttonhole, position the fabric and step down on the foot control.

To sew the next buttonhole a different size, press the memory button (M) to memorize a new size and start sewing from the beginning.

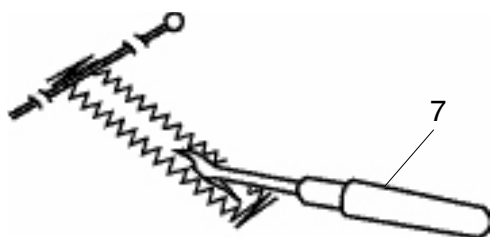
NOTE

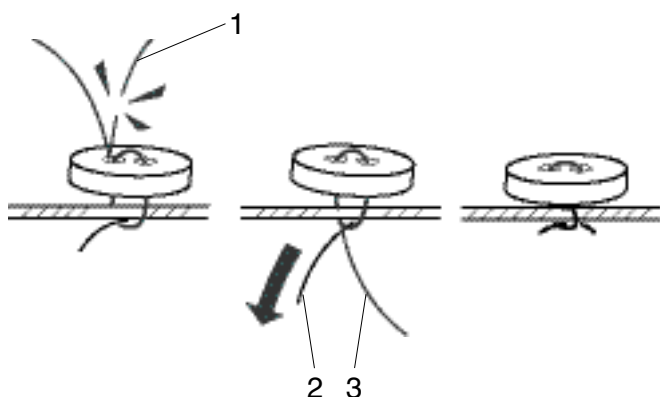
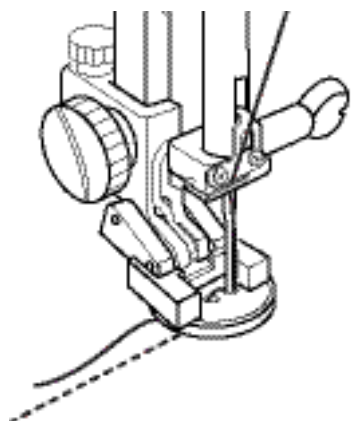
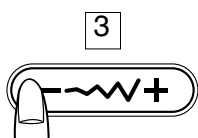
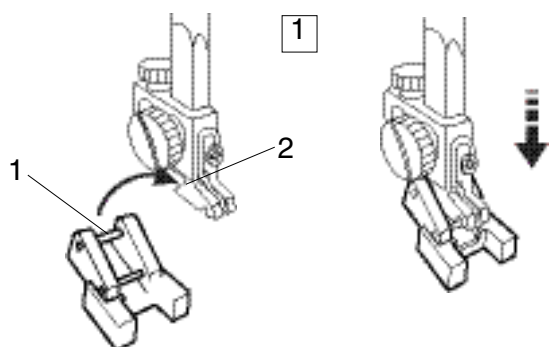
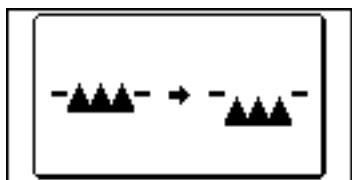
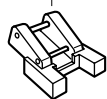
You can not change the stitch density of a memorized buttonhole.

Cut the buttonhole opening with the seam ripper.

(Refer to page 46.)

7 Seam ripper





Button Sewing

Buttons can be sewn quickly and very securely with your machine.

Machine Setting

Stitch pattern: 08 (Mode 1)
Thread tension: 3-7
Presser foot: Button sewing foot T
Foot pressure: 3
Feed dog: Dropped

Attaching the button sewing foot T

Step 1

Attach the button sewing foot T by inserting the rear pin on the foot into the groove of the presser foot holder. Gently lower the presser foot lifter while holding the foot with your fingers.

- 1 Rear pin
- 2 Groove of the presser foot holder

Step 2

Unthread the needle thread.

Step 3

Place a button on the fabric. Lower the needle by turning the handwheel, so that the needle enters into the left hole in the button.

Step 4

Align the holes in the button with the slot on the foot and lower it to hold the button in place.

Step 5

Turn the handwheel to lower the needle into the right hole in the button. Adjust the stitch width if necessary.

To sew in place

Step 6

Re-thread the machine and sew about 8 stitches. Select the auto-lock button. The needle will stitch in place to lock the threads and the machine will stop.

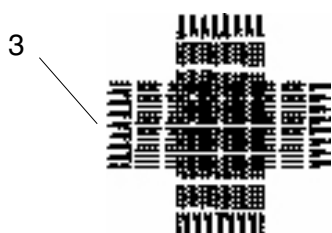
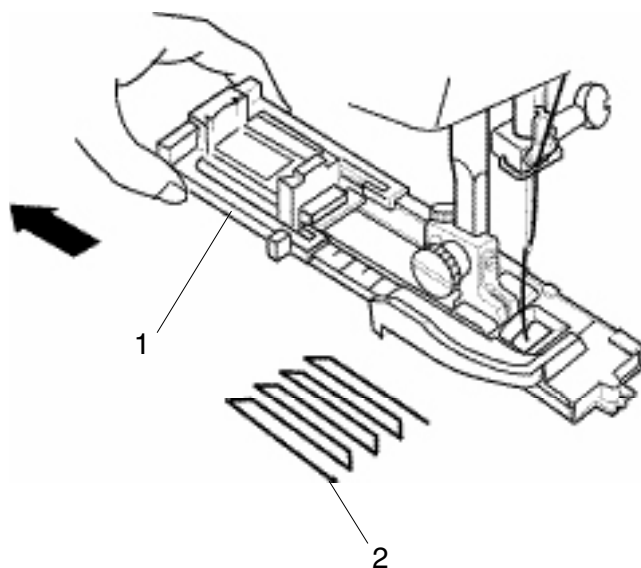
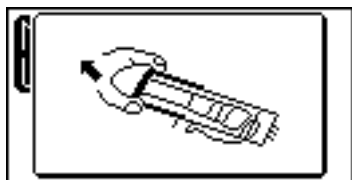
NOTE

When the foot control is pressed an alarm will tell you the feed dogs are down. Also the LCD screen shows a warning to raise the feed dog. Disregard the warning and continue to sew.

Raise the presser foot and remove the fabric. Trim needle and bobbin threads at the beginning. Cut remaining threads leaving 8" (20cm) tails.

Pull the bobbin thread on backside of fabric to bring the needle thread to the wrong side of the fabric. Knot the two threads to lock threads from coming unthreaded.

- 1 Needle thread at the beginning
- 2 Bobbin thread
- 3 Needle thread



Darning

Repairing holes neatly and securely can be a challenge. Using the automatic buttonholer makes very fine and secure stitching easily.

Machine Setting

Stitch pattern: 18 (Mode 3)
 Thread tension: 3-6
 Presser foot: Automatic buttonhole foot R
 Foot pressure: 3
 Feed dog: Up

Step 1

Attach the R foot and pull the button holder as far open as possible. Place the garment under the foot. Press the needle up/down button twice. Remove the fabric to the left to draw both threads under the foot and place the fabric back under the foot.

Lower the needle at the starting point then lower the foot.

- 1 Button holder
- 2 Starting point

Step 2

Depress the foot control and the machine will sew a 3/4" (2cm) long group of small straight stitches and stop automatically.

Step 3

Raise the presser foot and reposition fabric at a 90 degree angle.

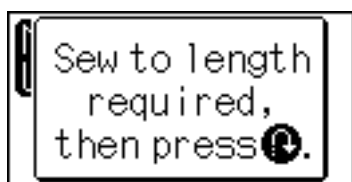
- 3 Fabric rotated 90 degrees

Repeat sewing in the opposite direction until the darning covers the rip or hole.

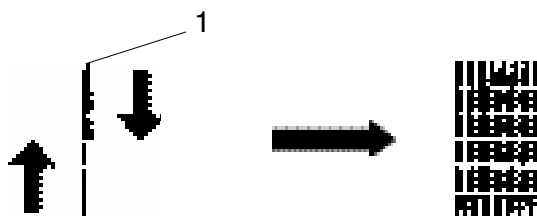
NOTE

The maximum darning area with the foot is 3/4" (2cm) long and 1/4" (0.7cm) wide.

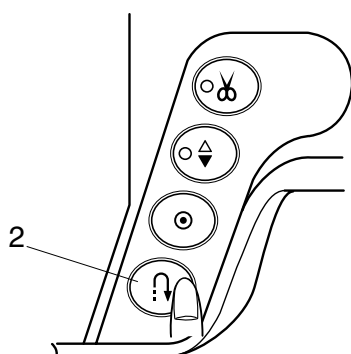
- 4 Maximum length 3/4" (2 cm)
- 5 Maximum width 1/4" (0.7cm)



1



2



Adjusting for a shorter darning area

The darning pattern can be sewn less than 3/4" (2 cm).

Step 1

Position foot over area to be prepared. When the proper distance is met, push the reverse button to set the length of the stitching.

- 1 Required length
- 2 Reverse button

Step 2

Continue sewing until the machine stops. To sew a darning shorter than 3/4" (2cm), first stop the machine after sewing the required length, then press the reverse button.

The required length has been determined.

Restart the machine and continue sewing until the machine stops automatically.

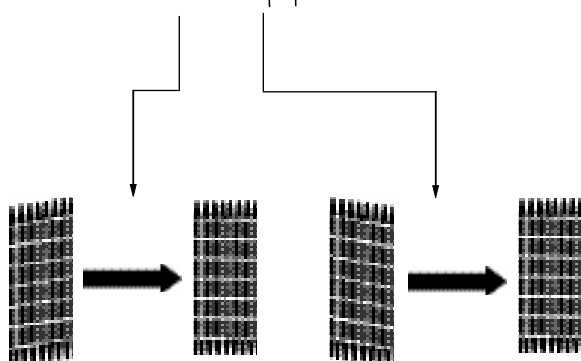
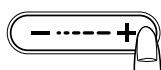
- 1 Required length
- 2 Reverse button

To sew the same size darning

Simply restart the machine to sew another darning area the same size.

To sew the darning area a different size

Press the memory button and start sewing from the beginning.



Uneven darning stitches

The stitching lines on the right side might not be even with the stitching lines on the left side. The darning may vary depending on the sewing condition, such as type of fabrics, number of layers, etc. You can correct the unevenness with the stitch length adjusting button.

Select the stitch length button and the window screen will show 7.0 d5. If the left corner is lower than the right side, press on "-" to correct it.

If the right corner is lower than the left side, press on "+" to correct it.

The evenness can be adjusted by selecting a setting between d1 and d9.



Tacking

Machine Setting

Stitch pattern: 19 (Mode 3)

Thread tension: 3-6

Presser foot: Satin stitch foot F

Foot pressure: 3

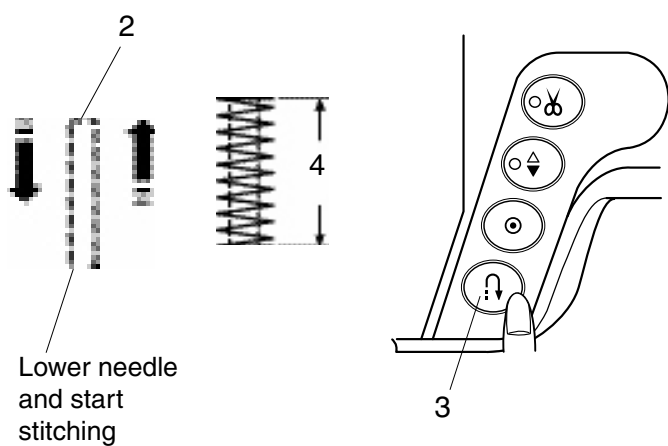
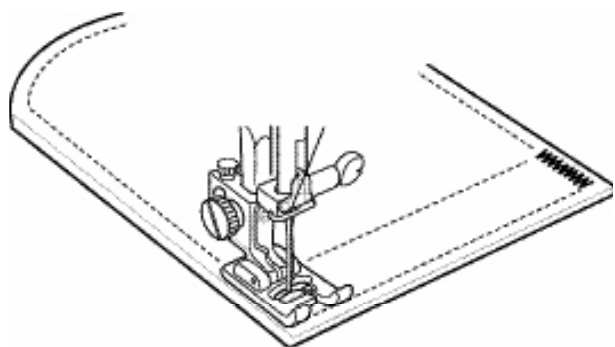
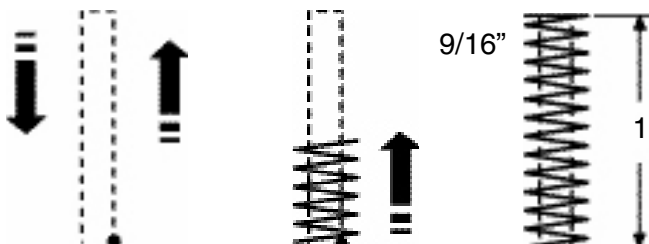
Tacking is used to reinforce pockets, crotch seams and belt carriers where extra strength is needed.

To sew

Place fabric under the foot the program a tacking stitch. Depress the foot control and the machine will stitch in reverse the standard pre-set tack length. The machine will then stitch back to the starting point, then zigzag back over the two rows of straight stitches. The machine will stop automatically when finished.

The pre-set tacking stitch pattern is 9/16" (1.5cm) long automatically.

1 9/16" (1.5cm)



How to sew a shorter tack

Tacks can be sewn at various lengths shorter than 9/16". Make a mark on the fabric to measure the length tack needed.

Lower the needle into the beginning of the marked line.

Lower the foot and sew to end of mark and stop.

Press the reverse button once to finish tack. The new tack length is now programmed.

2 Required length

3 Reverse button

4 Tack length

To adjust the next tack at a different size, press the memory button to cancel programmed tack stitch and program a new tack length.



Eyelet

Machine Setting

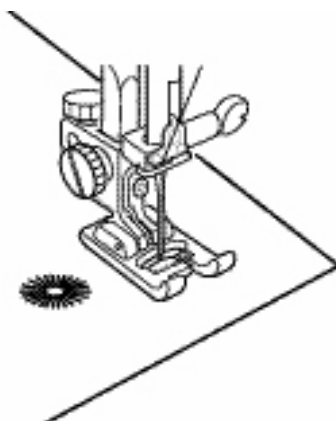
Stitch pattern: 20 (Mode 3)

Thread tension: 1-4

Presser foot: Satin stitch foot F

Foot pressure: 3

The eyelet is used for making holes for belts, crafts and cording.

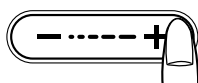


To sew

Depress the foot control to sew.

The machine will sew an eyelet and stop automatically when completed.

Open the eyelet with an awl, hole punch or pointed scissors.



Adjusting the shape of an eyelet

Correct the shape of the eyelet as follows:

If the eyelet gap opens, press “-” on the stitch length adjusting button.

If the eyelet overlaps, press “+” on the stitch length adjusting button.

The shape can be adjusted within L1 to L3.



Blind Hem

Machine Setting

Stitch pattern: 04 or 05 (Mode 3)

Thread tension: 1-4

Presser foot: Blind hem foot G

Foot pressure: 3

Select the pattern 04 for woven fabrics or pattern 05 for stretch fabrics.

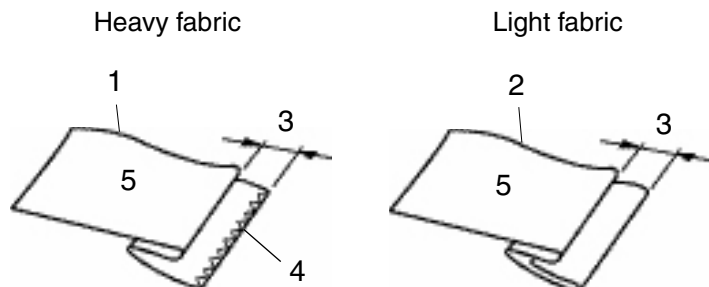
The stitch width of the blind hem stitch patterns 04 and 05 is adjusted by the needle drop position.

The stitch width of the blind hem stitch patterns 04 and 05 is permanent. The patterns 04 and 05 cannot be changed, but the needle drop position will move.

How to fold the fabric

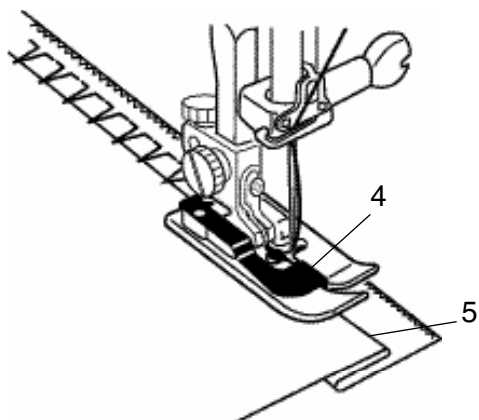
Fold the fabric to make a hem as shown.

- 1 Heavy fabric
- 2 Fine to medium fabric
- 3 3/16"-1/4" (0.4 -0.7cm)
- 4 Overcasted edge of fabric
- 5 Wrong side of fabric



Select the help button for an on screen picture to help you remember how to fold the fabric for a blind hem when manual is not close.

Select the help ? button for an on screen picture to help you remember how to fold the fabric for a blind hem when manual is not close.



Set up to test blind hem settings

Always test the settings for a buttonhole on a piece of the fabric being used. Position the fabric so that the fold comes to the left side of the guide on the foot.

Lower the presser foot.

Adjust the position of the needle swing with the stitch width adjusting button so that the needle just pierces the folded edge of the fabric when the needle comes over to the left side.

Sew guiding the fold along the guide.

- 4 Guide on the foot
- 5 Fold



Changing where the needle stitches

Very fine adjustments are available to drop the needle barely into the fold of the fabric. The closer the stitch is to the edge of the fold the less the thread will show on the outside of the hem.

How to move needle

Press the stitch width adjusting button.

The LCD screen shows the left needle position from the guide in millimeters.

Press on “-” to move the needle to the right.

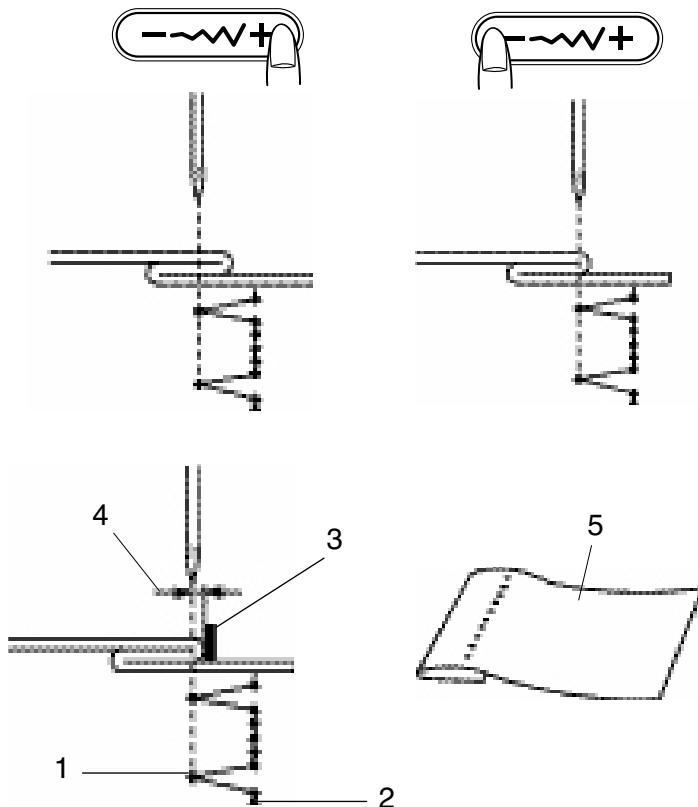
Press on “+” to move the needle to the left.

- 1 Left needle drop position
- 2 Right needle drop position
- 3 Guide on foot
- 4 Distance between the left needle position and the guide

Sew guiding the fold along the guide.

When fabric is turned to the right side the stitches should be very minimal in size. The bite into the fold of dense fabrics when hemming, will show the least on the right side.

5 Right side of the fabric



Programming Tip

How to increase the number of straight stitches in the blind hem

To program:

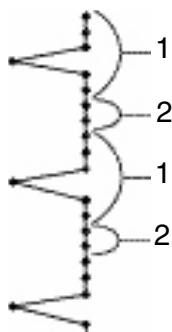
Select stitch 04 and press memory.

Select stitch 58 and press memory.

The machine now will sew 2 more straight stitches in between the blind hem stitch pattern.

Program stitch pattern 59 and you will have 4 straight stitches in between the blind hem stitch pattern.

- 1 Stitch pattern 04
- 2 Stitch pattern 58



4

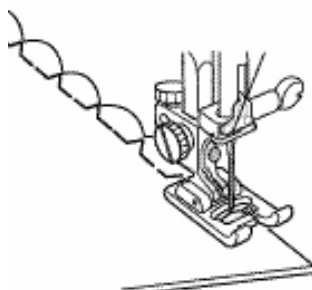
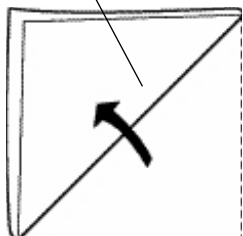
NOTE

To alter the needle drop position of the programmed stitch pattern combination, shift the cursor under the stitch pattern 04. Press the stitch width adjusting button. It is not necessary to adjust the needle drop position of the stitch pattern 58 or 59 they will change automatically.

4 Cursor



Fold is on bias



Shell Tucking

Machine Setting

Stitch pattern: 06 (Mode 3)

Thread tension: 6-8

Presser foot: Satin stitch foot F

Foot pressure: 3

Increase the needle thread tension to "6-8". Fold and stitch on the bias of woven fabrics. This technique works well on stretch fabrics, also. On stretch fabrics sew the shell across the greatest stretch of the fabric. Place the folded edge of the fabric along the slit of the foot. The right swing of the needle when stitching should fall off the edge of fabric fold. The tight tension with the right swing of the needle creates the tucks.

Scallop Stitch

This stitch pattern is a great finish on delicate fabrics. A popular finish for edges on hems, sashes, curtains and delicate heirloom projects.



Machine Setting

Stitch pattern: 08 (Mode 3)

Thread tension: 3-6

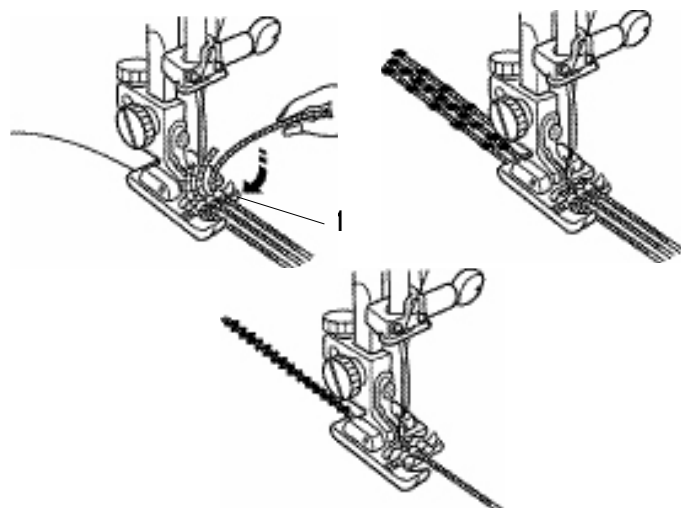
Presser foot: General purpose foot A

Foot pressure: 3

Stitch pattern 24 also makes nice scallops. This stitch works well on woven fabric. Positioning a strip of tear-away stabilizer under the fabric will produce a better result. Sew along the row edge leaving a 3/8" (1cm) seam allowance. After sewing, trim the fabric edge close to stitching. Take care not to cut stitches.

Cording

This stitch pattern combined with cording, creates beautiful couching. The grooves on top of the foot allow you to stitch precisely over the cords. The cords will naturally feed evenly under the spring grooves. Experiment with other stitch patterns to be even more creative. Sewing over a single cord with a long zigzag can be used to gather heavier fabrics.



Machine Setting

Stitch pattern: 22 (Mode 3)

Thread tension: 1-4

Presser foot: Cording foot H

Foot pressure: 3

Attach the cording foot H.

3-strand cording

Insert 3 strands of cording under the spring of the foot and draw them under the foot to the rear.

Hold the three strands parallel for even sewing and be sure to sew over the strands. Stitch slowly and smoothly, guiding the fabric as you sew.

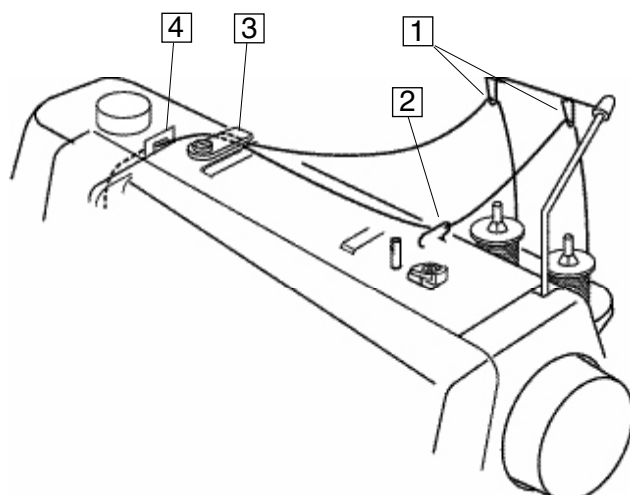
1 Spring

Single strand cording

Use the center slot on the foot to hold the cording.

Select stitch pattern 08 in the Mode 1 and adjust the stitch width to match the thickness of the cord.

Twin Needle Sewing




Twin straight stitching makes an attractive and functional hem in knit fabrics.

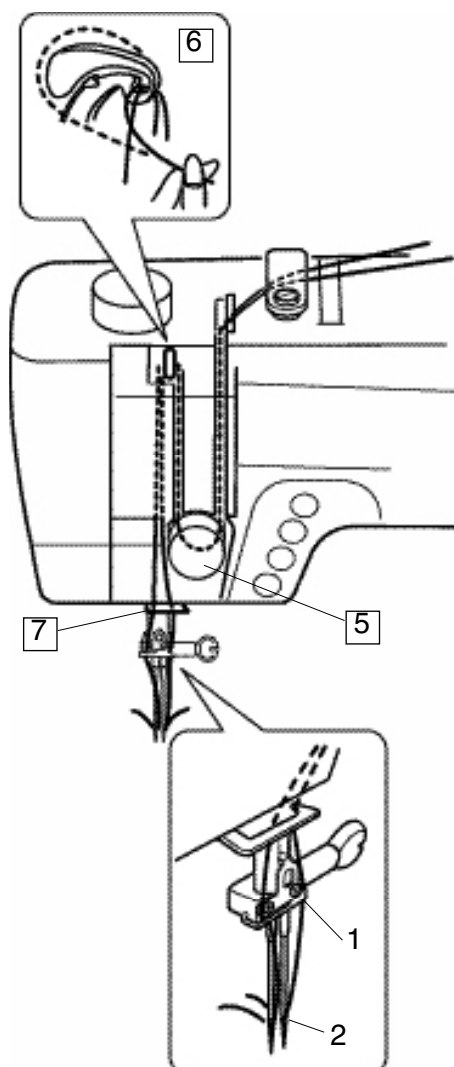
Decorative stitch patterns sewn with a double needle add a whole new look to the stitch pattern.

The distance between the needles will affect the required width setting. Turn off the machine before changing and inserting double needle.

NOTES

When you sew patterns with the twin needle, press the twin needle button . Test the stitch width on every stitch pattern selected by moving the needles with the handwheel with your hand.

Use the General purpose foot A or satin stitch foot F for twin needle sewing. When selecting threads to use in twin needles, make note of the needle size of the double needle. Finer needle sizes need finer weight threads. Decorative threads can offer some very attractive double needle work. Always test your stitch pattern combinations with thread selections. Never use the automatic thread cutter with a twin needle in the machine.



Threading machine with twin needle

Place two spools of thread on the spool stand.

Raise the presser foot lever up. Draw both threads from the spools and pass them through the points from **1** to **7**.

Make sure that the two strands of thread do not get tangled or twisted.

Slip one of the threads in the needle bar thread guide on the left, and the other on the right.

1 Needle bar thread guide

Thread the needles from the front to back with your hand.

2 Thread the needles

NOTES

Threading from **1** to **7** is the same as for single needle sewing.

The automatic needle threader cannot be used for the twin needle.



1



2



3

4



To sew

Machine Setting

Stitch Pattern: 23 (Mode 3)

Thread tension: 2-4

Presser foot: Satin stitch foot F

Foot pressure: 3

Press the twin needle button .

The LCD screen shows a twin needle icon and the maximum permissible stitch width is restricted to 3.0 mm.

- 1 Twin needle icon
- 2 Maximum width (3.0)

NOTE

Test the stitch width on every stitch pattern selected by moving the needles with the handwheel. The maximum permissible stitch width is based on a 2mm wide twin needle.

Sew at a medium speed.

When changing the sewing direction, raise the needles from the fabric.

- 3 Stitch pattern 23 sewn 4 times

Remember to never use the automatic thread cutter with a twin needle in the machine.

Twin needle sewing is not available in Mode 4.

If the selected pattern is not suitable for twin needle sewing, a warning message will be displayed on the LCD screen.

- 4 Warning message

PROGRAMMING STITCH PATTERNS AND BUTTON FUNCTIONS IN MODE 2 AND 3

Programming Stitch Patterns and Button Functions

Programming a Single Stitch Pattern with Auto-lock

Stitch Pattern: 23 (Mode 3)
Thread tension: 3-6
Presser foot: Satin stitch foot F
Foot pressure: 2-3

Step 1
Select stitch pattern 23.

Step 2
Press the memory button.

Step 3
Press the locking stitch button.

NOTE

No further patterns can be memorized after pressing the auto-lock button.

Step 4
Depress the foot control to sew.
The machine will lock the beginning of stitch pattern 23 and sew the pattern one time. At the end of the pattern the machine will sew locking stitches and stop automatically.

1 Locking stitch

Programming Tip:

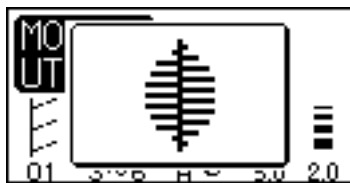
Auto thread cutter

The LED signal will turn on when programmed in the memory.
Press the auto-lock button at the end of sewing.
Programming the auto thread cutter after the locking stitch and the machine will trim the threads after it locks stitch 23 in place.

1



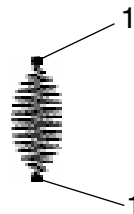
2



3



4



LED Signal



Programming Two Stitch Patterns

Machine Settings

Stitch Pattern: 23 and 25 (Mode 3)

Thread tension: 3-6

Presser foot: Satin stitch foot F

Foot pressure: 2-3

Step 1

Select the stitch pattern 23 in the Mode 3.

Step 2

Press memory button.

Step 3

Select the pattern 25.

Step 4

Press memory button.

Step 5

Start to sew. The machine will sew the pattern combination repeatedly.

Programming Tip:

When you are ready to stop sewing, select the auto-lock button. The machine will finish the stitch pattern and tie off. It will not stop at the end of the memorized pattern stitch sequence unless it is programmed in at the end of a stitch sequence.

1 Auto-lock button

Programming Two Stitch Patterns and Auto Thread Cutting

Follow programming steps above until Step 5.

Press the programmable auto thread cutter button.

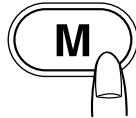
The machine will sew one unit each of the stitch patterns 23 and 25 then stop automatically and trim the threads.

2 Auto thread cutting

1



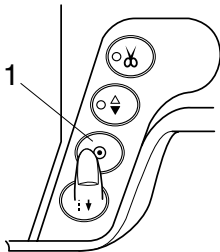
2



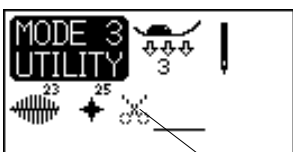
3



4



5



2





X 1 X 2 X 3 X 4 X 5



Elongating Satin Stitch Patterns

Patterns number 21-28 in the Mode 3 can be elongated up to x 5.

Elongated stitches can be programmed into a stitch pattern sequence. Program stitch sequence and then move cursor under the stitch to be elongated. Select the elongation button and set the number of elongations for that stitch pattern.

Machine Settings

Stitch Pattern: 23 (Mode 3)

Thread tension: 3-6

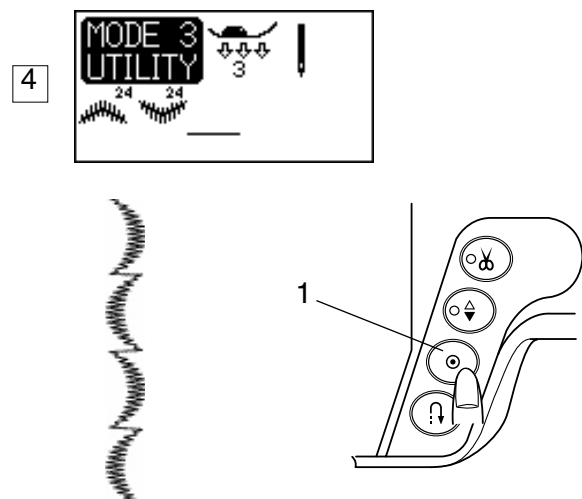
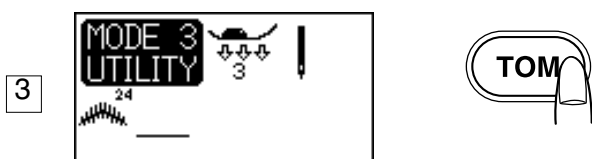
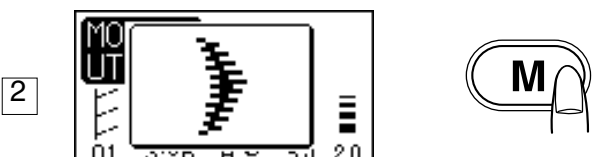
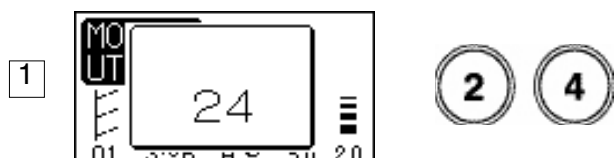
Presser foot: Satin stitch foot F

Foot pressure: 2-3

Select stitch pattern 23.

Press the elongation button.

Elongation ratio is indicated in multiples of the original pattern length.



Programming stitch patterns with mirror Image

Machine Settings

Stitch Pattern: 24 (Mode 3)

Thread tension: 3-6

Presser foot: Satin stitch foot F

Foot pressure: 2-3

Step 1

Select stitch pattern 24 in the Mode 3.

Step 2

Press the memory button.

Step 3

Press the turnover memory button.

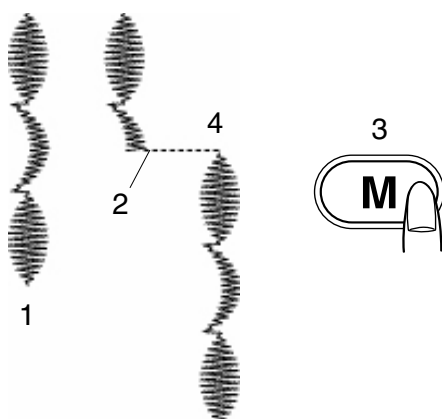
Step 4

Start to sew. The machine will sew the stitch pattern combination repeatedly.

Programming Tip:

If you press the Auto-lock button in the middle of a programmed stitch pattern the machine will stop automatically after the current stitch pattern is completed.

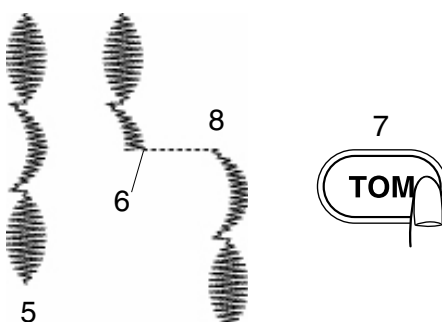
1 Auto-lock button



Starting Programmed Stitch Patterns at the Beginning

If the stitching is terminated before the end of the programmed stitch patterns it is easy to return to the beginning. To start at the beginning of the memorized sequence press the memory button.

- 1 Programmed pattern combination sewn
- 2 Stitching stopped
- 3 Press memory button.
- 4 Machine sews from the beginning of programmed stitch pattern.



Returning to beginning of incomplete stitch pattern

When stitching out a combination a thread may break or the bobbin thread could run empty. To start close to where the stitching stopped select the TOM button. The machine will return to stitching the beginning of the last pattern sewn.

- 5 Programmed pattern combination
- 6 Stop sewing
- 7 Press turnover memory button
- 8 Machine sews pattern combination at beginning of incomplete pattern

Making a copy and mirror image of programmed stitch patterns

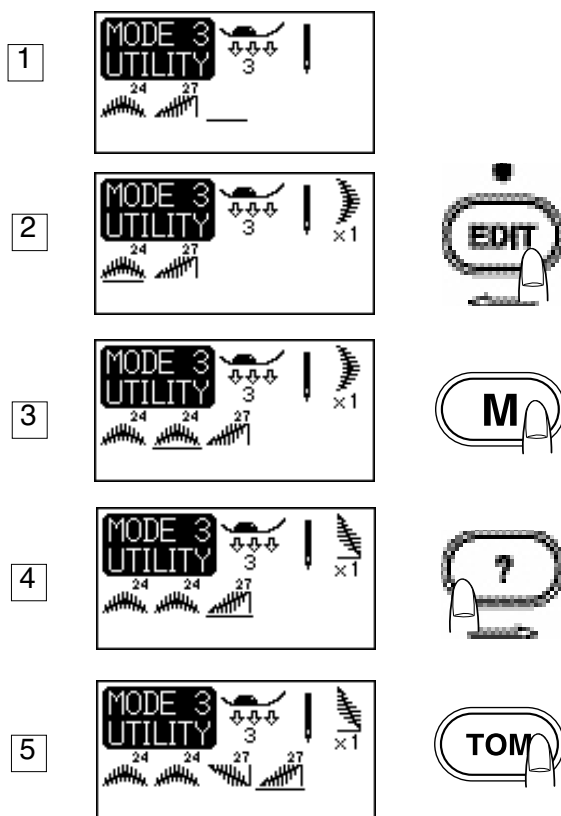
Machine Settings

Stitch Pattern: 24-27 (Mode 3)

Thread tension: 3-6

Presser foot: Satin stitch foot F

Foot pressure: 2-3



Step 1

Select stitch pattern 24 and the memory button.
Select Stitch pattern 27 and the memory button.

Step 2

Press the edit button to shift the cursor under stitch pattern 24.

Step 3

Press the memory button and a copy of stitch pattern 24 will be memorized.

Step 4

Press the help button to shift the cursor under stitch pattern 27.

Step 5

Press the Turnover memory button and a mirror image of stitch pattern 27 will be memorized.

Editing Programmed Stitch Patterns

Uniform stitch adjustment (Modes 2 and 3 only)

The stitch width and stitch length of programmed stitch patterns can be edited uniformly.

Step 1

Program stitch patterns 36, 37 and 36 in Mode 3.
See page 62 for programming instructions.

Step 2 and 3

Press the stitch width adjusting button to edit the stitch width. Select a width of 5.0. Stitch length could be altered also.

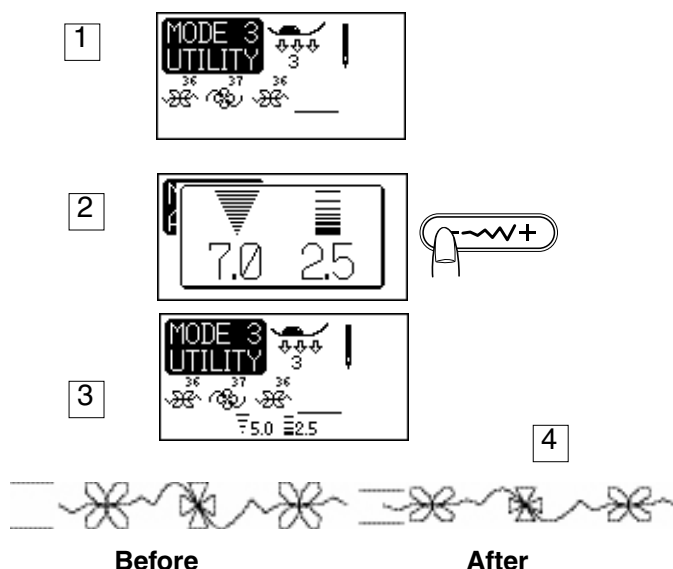
Programming Tip:

You can change the width and length of most stitches, however, the range of width and length settings for stitch patterns is pre-set by the factory. Certain stitch patterns can only be altered by width.

Step 4

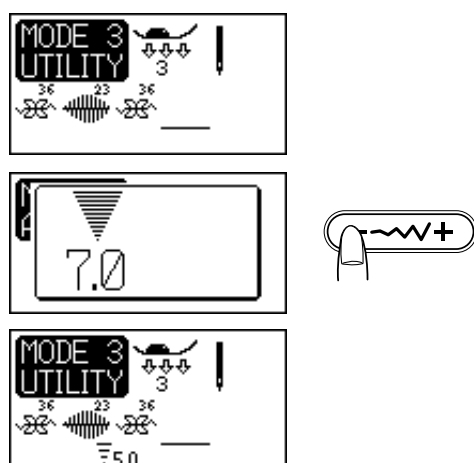
Sew the programmed stitch patterns. The programmed stitch patterns have sewn in a reduced unified width.

- 1 Default width
- 2 Uniformly altered width



Before

After

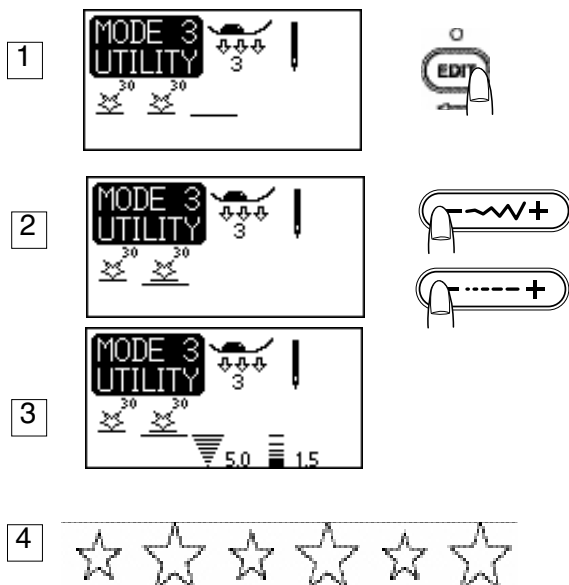


Programming patterns that are limited to width only

Program pattern 36, 23 and 36.

Shift the cursor to the right of the last programmed pattern.

Press the stitch width adjusting button to alter the stitch width. The LCD screen will show the stitch width only. Start sewing. The programmed patterns will be sewn in the uniform width.



Customizing individual stitch patterns (Mode 2 and 3 only)

The stitch width and length can be individually edited for each stitch pattern in a programmed combination.

How to alter the stitch width and length of a single pattern in a combination

Step 1

Press the Edit button to shift the cursor under the pattern you wish to alter.

Step 2 and 3

Press the stitch width adjusting button to reduce the width to "5.0".

Press the stitch length adjusting button to reduce the length to "1.5".

Step 4

The edited combination sewn.

Programing Tips:

To view the stitch pattern setting of each stitch pattern, shift the cursor under the desired stitch pattern then press the stitch width or length adjusting button. The settings will be displayed at the bottom center of the LCD screen. If you press the stitch width or length adjusting button when the cursor is on the right of the last programmed stitch pattern, a custom adjustment will be cancelled and uniform adjustment will be applied.

Storing and recalling stitch pattern combinations

A stitch pattern combination will be kept in the memory for future use even after turning the machine off.

The stored stitch pattern combination can be recalled by selecting the Mode where the combination was sewn. Then press the memory/recall button after turning the machine on.

Programing Tips:

If you store a new pattern combination, the previously stored combination will be deleted.

One pattern combination can be stored in each mode.

To store a stitch pattern combination

Step 1

Program a stitch pattern combination.

Step 2

Press the memory/recall button. An hourglass will appear for a while and the pattern combination will be stored.

Step 3

Turn the machine off.

To recall the stored pattern combination

Step 4

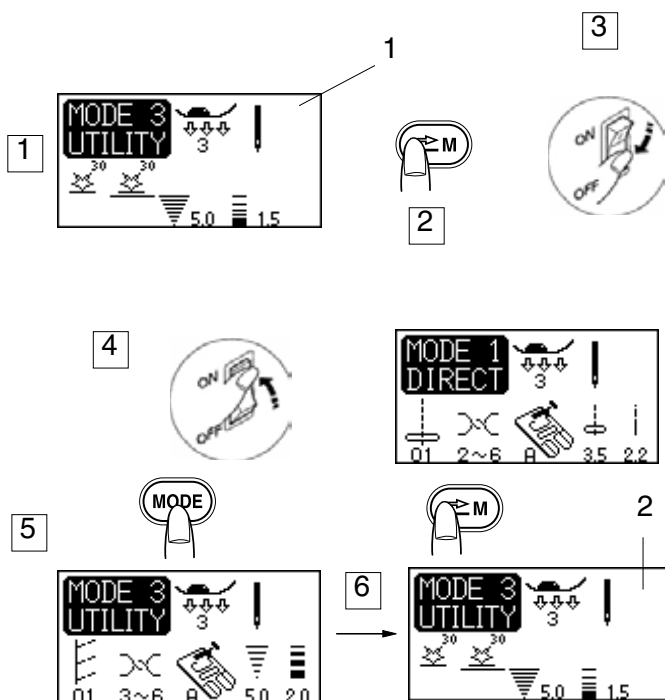
Wait 15 seconds and turn the machine on.

Step 5

Select the mode in which you have stored the pattern combination.

Step 6

Press the memory/recall button and the stored combination will appear on the LCD screen.



MONOGRAMMING (Mode 4)

Selecting a Letter Style

There are two styles of letters to choose from.
Select block or script letter styles.

- 1 Block
- 2 Block international alphabet
- 3 Script
- 4 Script international alphabet

Press the letter style button to choose one of the following:

- 1 Block
- 2 Block international alphabet
- 3 Script
- 4 Script international alphabet

1



2



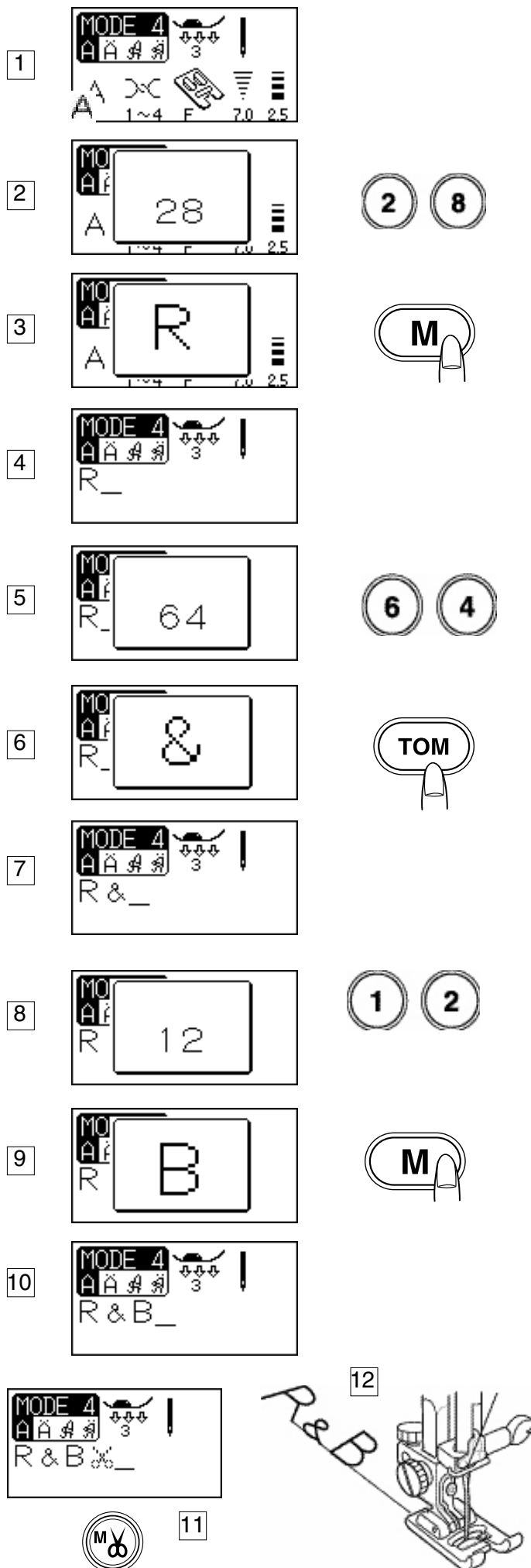
3



4



**Letter
Style
Button**



Programming Lettering

Machine Settings

Stitch Pattern: A (Mode 4)

Thread tension: 2-4

Presser foot: Satin stitch foot F

Foot pressure: 2-3

Step 1

Select the lettering Mode 4.

Step 2

Select the letter "R" (pattern 28). The default lettering style is block.

Step 3

Press the memory button.

Step 4

The letter "R" will be memorized.

Step 5

Select the pattern "&" (pattern 64).

Step 6

Press the turnover memory button.

Step 7

The letter size will be reduced to 2/3 of the original size.
The reduced pattern "&" will be memorized.

Step 8

Select the letter "B" (pattern 12).

Step 9

Press the memory button.

Step 10

"R&B" will be memorized.

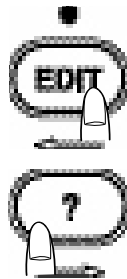
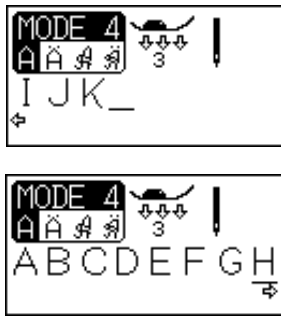
Step 11

Press the auto thread cutter button after programming a monogram. The LED signal will turn on and the cutter mark will appear after the text.

To sew lettering

Step 12

Depress the foot control to sew. The machine will sew the lettering, then stop automatically and trim the threads.



Viewing a Long Text



The LCD screen only shows 8 characters of the lettering at a time.

If the entire text is not displayed, press the edit button or help button to scroll through the text.

Pressing the edit button shifts the cursor and scrolls the text to the left.

Pressing the help button shifts the cursor and scrolls the text to the right.

Programming tip:

Arrow marks   under the character indicates that there are remaining characters in that direction.

Editing Lettering

Inserting a letter (character)

How to insert a space in "ABCD".

Program ABCD into the memory.

See page 68 for instructions on programming.

Step 1

Press the Edit button twice to shift the cursor under the letter "C".

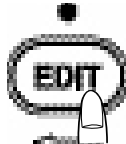
Step 2

Select pattern 67 (blank space).

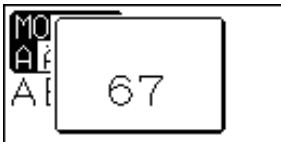
Step 3

Press the memory button and a space will be inserted before the letter "C".

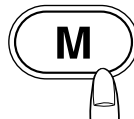
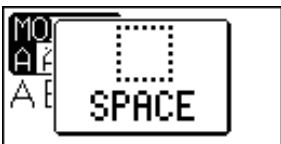
1



2



3



4



Deleting a letter (character)

How to delete "C" from "ABCD"

Step 1

Press the edit button to shift the cursor under the letter "C".

Step 2

Press the clear button. The letter "C" will be deleted.

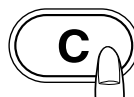
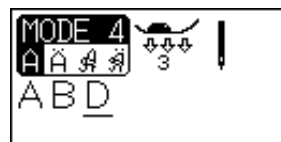
Programming Tip:

Pressing the clear button for a while will delete the entire program and the LCD screen will return to the initial display of the selected mode.

1



2



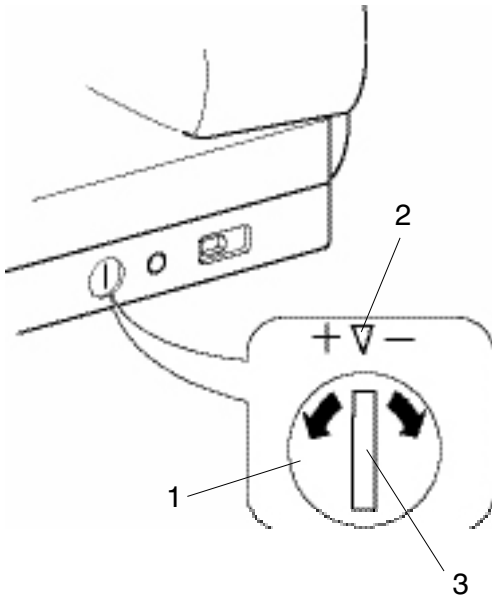
Correcting Distorted Stitch Patterns

Uneven stitch patterns can be the result of various sewing conditions. Sewing speed, fabric type, fabric layers and unstable fabrics are some of the factors that effect the feeding of the fabric under the presser foot. Always check that you are following the machine settings for the stitch pattern you are stitching.

When test sewing stitch patterns be sure to have the identical stitching setup as on your project. Example: Thread, fabric, stabilizers, presser foot and needle.

The feed balancing dial will help correct distortions in stretch stitch patterns, lettering, decorative stitch patterns and the automatic buttonholes.

- 1 Feed balancing dial
- 2 Neutral position
- 3 Setting mark



Programing Tip:

Before adjusting the stitch balance dial, check that you are following the machine settings shown on the LCD screen for this stitch pattern. Presser foot pressure, presser foot used, amount of stabilization, tension settings and sewing speed all effect stitch pattern formation.

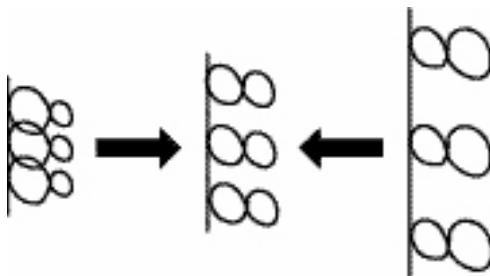


Adjusting a stretch stitch pattern

Example: Pattern 31 in Mode 2

If the stitch pattern is compressed, turn the feed balancing dial in the direction of “+”.

If the stitch pattern is drawn out, turn the feed balancing dial in the direction of “-”.

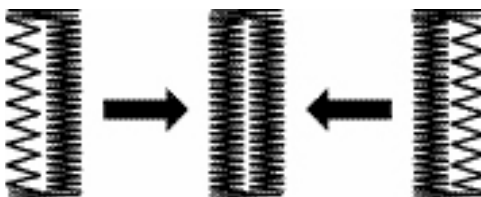


Letters and numbers

Example: Pattern 08 in Mode 4

If the stitch pattern is compressed, turn the feed balancing dial in the direction of “+”.

If the stitch pattern is drawn out, turn the feed balancing dial in the direction of “-”.



Stitch balance of the auto buttonhole

The stitch balance of the right and left rows on the auto buttonhole may vary depending on conditions of sewing.

If the right row is denser, turn the dial in the direction of “+”.

If the left row is denser, turn the dial in the direction of “-”.

Programing Tip:

Always return the feed balancing dial to its neutral position when the sewing project is finished.

CARE AND MAINTENANCE

Cleaning the Bobbin Case and Feed Dog

WARNING

Turn the power switch off and unplug the machine before cleaning.

NOTE

Do not dismantle the machine in any way other than what is explained on this page.

Step 1

To disassemble bobbin case area, remove the needle and presser foot. Remove the setscrews and remove the needle plate.

Step 2

Take out the bobbin case. Lift up the bobbin case to remove.

Step 3

Clean the bobbin case holder with the lint brush and a soft dry cloth.

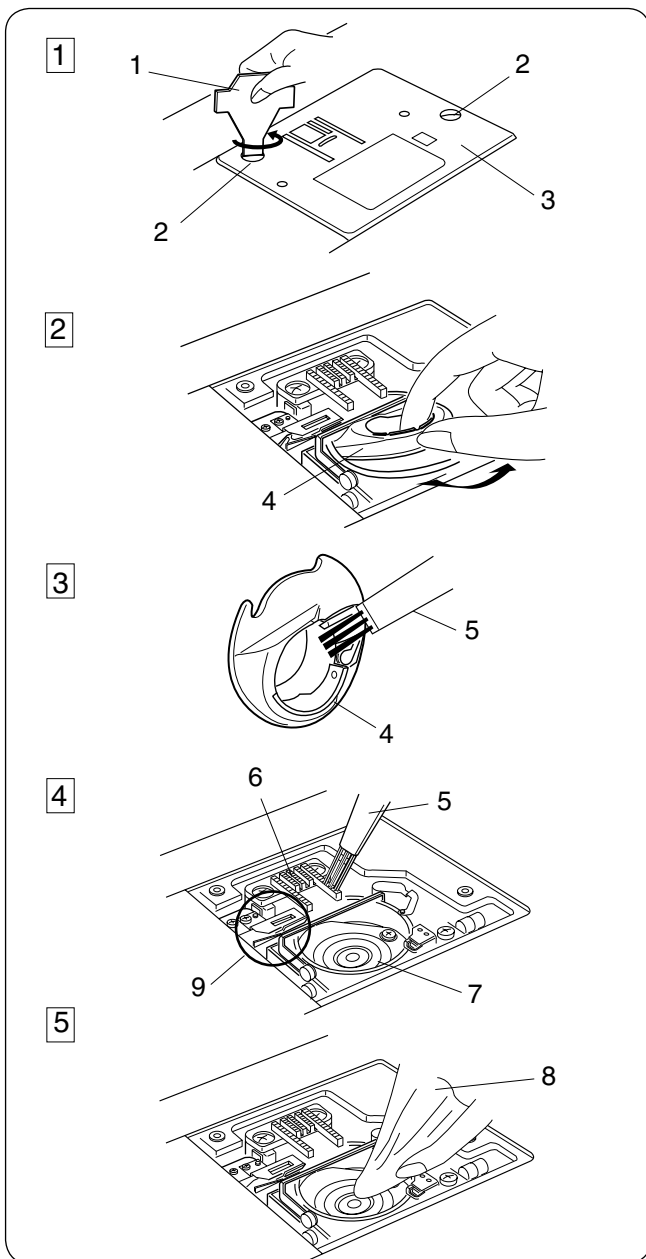
Step 4

Clean the feed dog, auto thread cutter mechanism and hook area with the lint brush.

Step 5

Clean the hook area with a dry cloth.

- 1 Screwdriver for needle plate
- 2 Setscrew
- 3 Needle plate
- 4 Bobbin case
- 5 Lint brush
- 6 Feed dog
- 7 Hook area
- 8 Soft dry cloth
- 9 Auto thread cutter mechanism



To reassemble bobbin case area

Step 1

Insert the bobbin holder. The knob of the bobbin holder should fit next to the stopper on the hook area. Be sure to align the red triangle marks on the bobbin holder and stopper.

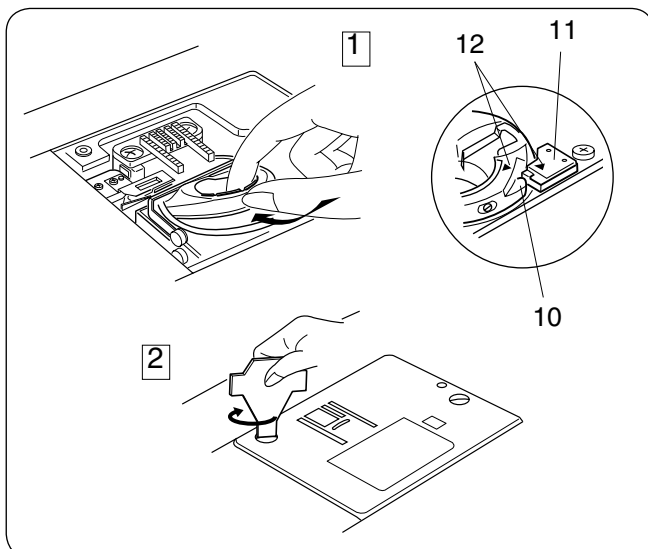
Step 2

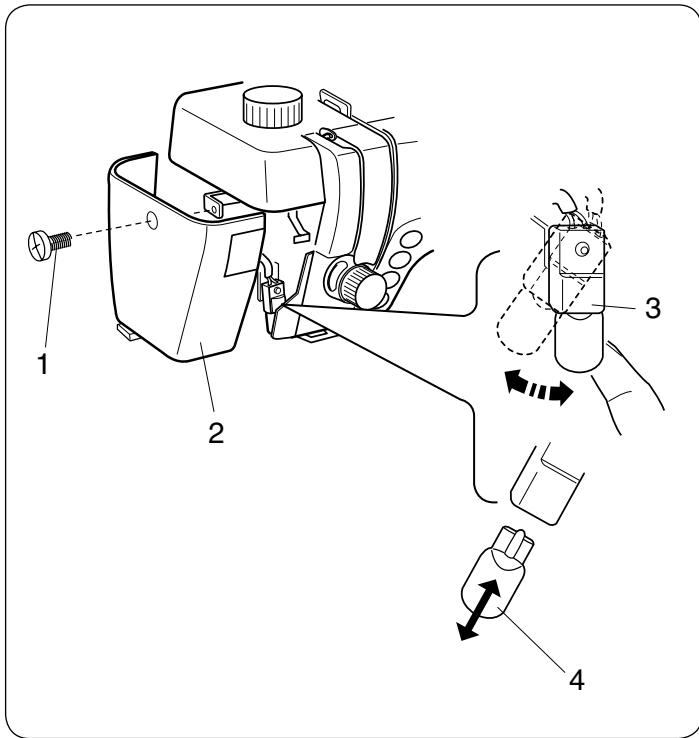
Reattach the needle plate and tighten the screws.

- 10 Knob
- 11 Stopper
- 12 Triangle marks

NOTE

After cleaning the machine, attach the needle and presser foot.





Replacing the Light Bulb

WARNING

Turn the power off before replacing the light bulb.
The bulb could be HOT, wait until it has cooled down before touching it.

To remove:

Remove the setscrew.

Remove the faceplate.

Swing the lamp socket to the left and pull out the bulb.

To replace:

Insert a new bulb into the opening of the socket.

Return the lamp socket to the original position.

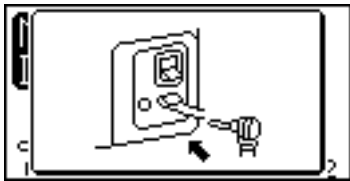
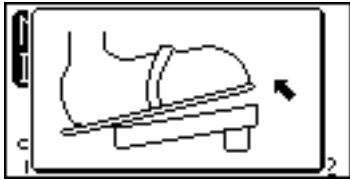
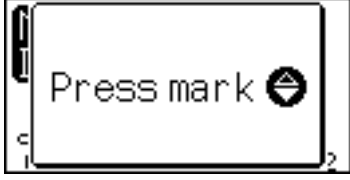
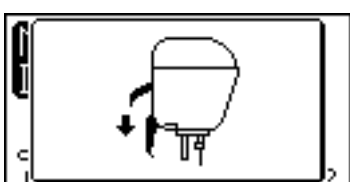
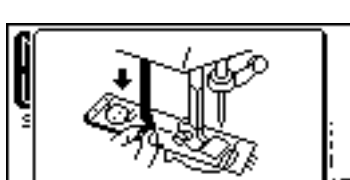
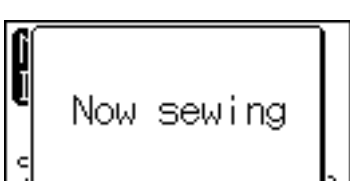

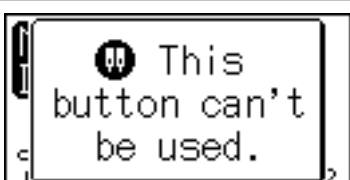
Attach the faceplate with the setscrew.


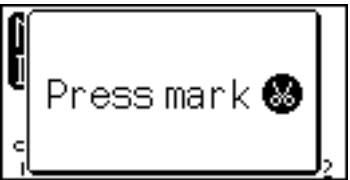


- 1 Setscrew
- 2 Faceplate
- 3 Lamp socket
- 4 Light bulb

Replace a bulb with the same type, rated 12 V, 5 W.

Problems and Warning Signals

Buzzer sounds and LCD screen pictures tell you that the machine is sensing a problem. These symbols are explained below and what action needs to be taken.

Warning Sign	Cause	Action
	The power is turned on without the foot control being connected. The foot control is disconnected while sewing.	Connect the foot control and restart the machine.
	The power is turned on while depressing the foot control.	Release the foot control.
	The power is turned on with the needle in the down position.	Press the needle up/down button to raise the needle.
	The machine is being asked to sew without lowering the presser foot. The thread cutter button is pressed with the presser foot raised. Note: The machine will stop if the presser foot is raised while sewing.	Lower the presser foot and restart to sew. Lower the presser foot and press the thread cutter button again.
	The machine will stop if the buttonhole is sewn without lowering the buttonhole lever.	Lower the buttonhole lever and restart the machine.
	The foot control is released while sewing a locking stitch.	Depress the foot control again to let the machine stop automatically.
	The auto thread cutter button is pressed when the machine is still initializing after turning the power on. Pressing the thread cutter button 4 times in a row	Press the thread cutter button after the machine stops. The thread being used is not compatible with the auto thread cutter. Use the thread cutter on the face plate. Check that there is not thread lodged in the auto thread cutting mechanism.
	The twin needle button is pressed when a pattern unsuitable for twin needle sewing has been selected.	Sew with a single needle.

Warning Sign	Cause	Action
	The elongation button is pressed when a pattern that cannot be elongated has been selected.	Elongation is applicable only to satin stitches.
	The power is turned on again after auto thread cutting has been interrupted. The presser foot is raised before auto thread cutting is completed.	Press the Thread cutter button to finish auto thread cutting. Lower presser foot and press the auto thread button.
	The machine is started when it halts due to overload. The feed dog is dropped while sewing. The bobbin winder spindle is locked while winding a bobbin.	Wait for at least 15 seconds to restart. Remove tangled threads around bobbin case and auto thread cutting device. Do not drop or raise the feed dog while the machine is running. Turn off the power and remove tangled threads around bobbin winder spindle.
	The machine is out of order due to a problem in the item indicated. (Example: "BM init error" means error in initialization of stepping motor.)	Go to www.singerco.com for information on warranty and service centers
The LCD screen shows an unfamiliar error screen.	Turn the power off and turn it on again. Be sure to wait 15 seconds between turning the power off and back on again.	

Audible Signal	
pip	Normal operation
pip-pip-pip	Invalid operation or malfunction

Troubleshooting

Humming sound from motors

It is normal to hear a faint humming sound is coming from the internal motors.

The pattern selection key area may get warm when the machine has been used for hours.

Condition	Cause	Reference
The needle thread breaks.	<ol style="list-style-type: none"> 1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is incorrectly inserted. 5. The needle thread and the bobbin thread are not set under the presser foot when start sewing. 6. The threads were not drawn to the rear after sewing. 7. The thread is too heavy or too fine for the needle. 8. The thread is tangled around a spool holder. 	Page 15 Page 20 Page 19 Page 19 Page 25 Page 25 Page 19 Page 12
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not threaded properly in the bobbin case. 2. Lint has collected in the bobbin case. 3. The bobbin is damaged and does not turn smoothly. 	Page 14 Page 70 Change the bobbin.
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle clamp screw is loose. 3. The threads were not drawn to the rear after sewing. 4. The needle is too fine for the fabric being used. 5. The wrong presser foot is used for a sewing technique. 	Page 19 Page 19 Page 25 Page 19 Use the correct foot.
Skipped stitches	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted, bent or blunt. 2. The needle and/or threads are not suitable for the work being sewn. 3. A ball point needle is not being used for sewing stretch, and synthetic fabrics. 4. The needle thread is not threaded properly. 5. A poor quality needle is used. 	Page 19 Page 19 Page 19 Page 15 Change the needle.
Seam puckering	<ol style="list-style-type: none"> 1. The needle thread tension is too tight. 2. The needle thread is not threaded properly. 3. The incorrect presser foot is being used. 4. The needle is too heavy for the fabric being sewn. 5. The stitch length is too long for the fabric. 6. The foot pressure is not adjusted properly. 7. A stabilizer isn't used when sewing on light weight & very fine fabrics. 	Page 20 Page 15 Page 19 Make stitch shorter. Page 21 Apply a stabilizer. Page 70
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> 1. The feed dog is packed with lint. 2. The stitch length is too short. 3. The feed dog is not raised after "drop feed" sewing. 	Make stitch longer. Page 21 Page 20
Thread loops on the underside of fabric.	<ol style="list-style-type: none"> 1. The needle thread tension is too loose. 2. The needle is not compatible with the fabric being used. 	Page 19 Page 5
The machine does not sew or run.	<ol style="list-style-type: none"> 1. The machine isn't plugged in. Foot control is not connected completely. 2. Thread has been caught in the bobbin case area. 3. The presser foot has not been lowered. 	Page 70 Page 72 Page 47
Problems when sewing buttonholes.	<ol style="list-style-type: none"> 1. The stitch density is too dense for the fabric being sewn. 2. No interfacing or stabilizer is being used with unstable fabric. 3. The buttonhole lever has not been lowered. 	Apply an interfacing. Page 43 Page 70
The machine is noisy.	<ol style="list-style-type: none"> 1. Thread has been caught in the bobbin case area. 2. Lint has built up in the bobbin case area. 	Page 70 Page 21
Layers shift.	<ol style="list-style-type: none"> 1. The foot pressure isn't suitable for fabrics being sewn. 	Even feed / Walking foot should be used.
Thread cutter LED blinks.	<ol style="list-style-type: none"> 1. The presser foot is raised before auto thread cutting is complete. 2. Threads are caught in the auto thread cutting mechanism. 	Lower the presser foot. Page 70